STATEMENT REGARDING ORAL ARGUMENT

TVA respectfully requests oral argument. The decision below holds that Clean Water Act ("CWA") liability can be imposed based upon the migration of pollutants through groundwater that is hydrologically connected to navigable waters. The validity of this "hydrologic connection" theory is a question of first impression here, has divided federal courts nationwide (including district courts within this Circuit),[1] and is being litigated in four other cases pending before the Circuit Courts of Appeals.[2] Further, because this case involves a CWA-permitted facility, it presents significant questions about the applicability of the collateral attack and permit shield doctrines, which provide independent grounds for reversal. Finally, this case raises serious issues about the appropriate scope of injunctive relief under the CWA. Full exploration of these issues through oral argument should aid the Court in its decisional process.

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1 *Compare Ky. Waterways Alliance v. Ky. Utils. Co.*, No. 5:17-292-DCR, 2017 WL 6628917, at *11-12 (E.D. Ky. Dec. 28, 2017) (rejecting the hydrologic connection theory and collecting cases), *with Tenn. Clean Water Network v. TVA*, No. 3:15-cv-424, __F. Supp. 3d__, 2017 WL 3476069, at *42-44 (M.D. Tenn. Aug. 4, 2017) (accepting the hydrologic connection theory and collecting cases).

2 *Haw. Wildlife Fund v. Cnty. of Maui*, No. 15-17447 (9th Cir. argued Oct. 12, 2017); *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, No. 17-1640 (4th Cir. argued Dec. 7, 2017); *Sierra Club v. Va. Elec. Power Co.*, No. 17-1952 (4th Cir. oral argument calendared Mar. 20-22, 2018); *26 Crown Assocs., LLC v. Greater New Haven Reg'l Water Control Auth.*, No. 3:15-cv-1439 (JAM), 2017 WL 2960506 (D. Conn. July 11, 2017), *appeal docketed*, No. 17-2426 (2d Cir. Aug. 4, 2017).

JURISDICTIONAL STATEMENT

The district court had subject-matter jurisdiction under 28 U.S.C. § 1331 and 33 U.S.C. § 1365(a), and entered final judgment on August 4, 2017. TVA timely noticed its appeal on October 2, 2017. This Court has jurisdiction under 28 U.S.C. §§ 1291-92.

STATEMENT OF THE ISSUES PRESENTED FOR REVIEW

1. Whether the district court erred in holding that the CWA's prohibition of unpermitted point source discharges extends to the migration of pollutants through hydrologically connected groundwater to navigable waters.

2. Whether the district court erred by overriding TDEC's express regulatory decisions not to impose National Pollutant Discharge Elimination System ("NPDES") permit conditions for seepage and leakage of coal ash leachate through groundwater at TVA's Gallatin Fossil Plant ("Gallatin").

3. Whether the district court abused its discretion in ordering complete excavation and relocation of the 13.8 million cubic yards of coal ash stored at Gallatin.

STATEMENT OF THE CASE

I. INTRODUCTION

This is a CWA citizen suit involving coal combustion residuals (CCRs, commonly known as coal ash) located in two sites at Gallatin: unlined active treatment ponds (the Ash Pond Complex, or Complex), and a long-closed storage area (the Non-Registered Site, or NRS). Because it found that an indeterminate but small amount of CCR leachate[3] from these sites probably seeps or leaks to groundwater that eventually migrates to the Cumberland River, the district court imposed CWA liability.[4]

The district court reasoned that the migration of pollutants through groundwater that is hydrologically connected to navigable waters (which all groundwater is) constituted an unpermitted discharge under the CWA, albeit unobservable and without discernible effect on the Cumberland River. The district court reached this conclusion even though the key statutory provision does not

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[3] The Environmental Protection Agency ("EPA") defines combustion residual leachate as "leachate from landfills or surface impoundments containing combustion residuals [like coal ash]" and "composed of liquid . . . that has percolated through waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (*e.g.*, bottom, dikes, berms)," including "seepage and/or leakage from a combustion residual landfill or impoundment unit." 40 C.F.R. § 423.11(r).

[4] The record is not consistent regarding usage of the terms "seep" and "leak." (*Compare* Mem. Op., RE139, PageID#5332 n.2, *with* FF&CL, RE258, PageID#10519; *see also infra* p.16.)

mention groundwater at all and despite Congress's express refusal to regulate the migration of pollutants through groundwater under the CWA's point source discharge program.

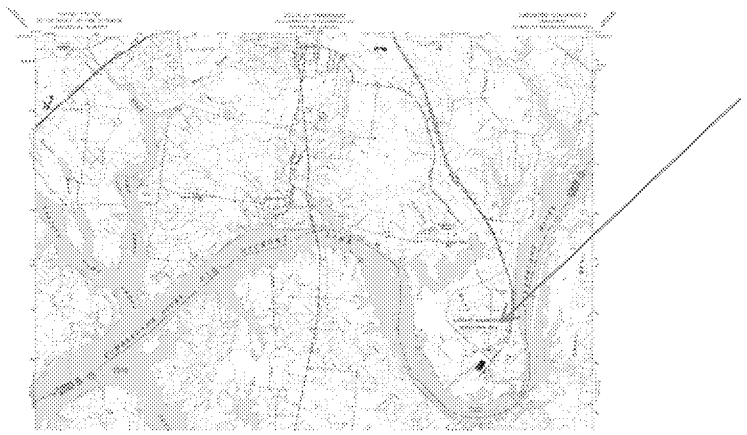
The district court also second-guessed the informed decisions made by the Tennessee Department of Environment and Conservation ("TDEC") in 2012 to reissue the Gallatin NPDES permit (over the protest of environmental groups including one of the Plaintiffs here); to continue regulating the NRS under its solid waste program (rather than its NPDES authority); not to impose NPDES permit conditions for groundwater migration of coal ash leachate; and to rely upon the Permit's biological monitoring requirements to address any potential effects from groundwater flow to the Cumberland River.

Erroneously reasoning that the CWA so required, the district court imposed a draconian remedy—the excavation and relocation of 13.8 million cubic yards of coal ash—even while acknowledging the absence of proof of harm to the Cumberland River. This costly remedy is not required by the CWA, is inconsistent with EPA's comprehensive regulatory approach for the operation and closure of coal ash sites, and increases the risk of harm to the environment and to the public.

II. FACTUAL BACKGROUND

A. Gallatin Operations and Environmental Regulation Before 2012

Gallatin is a coal-fired electric power plant located in Sumner County, Tennessee, on Odom's Bend Peninsula adjacent to the Cumberland River (Old Hickory Lake), a navigable water of the United States. (FF&CL, RE258, PageID#10426.)



(JX217 (App.1).)[5]

Gallatin "serves as a base load on TVA's power generation system and generates electricity for the greater Nashville area." *Tenn. Envtl. Council v. TVA*,

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[5] Trial exhibits (including joint exhibits (JX) and Defendant's exhibits (DX) are in the appendix sent to the Court on disc and are cited by the exhibit number listed on the Exhibit and Witness List (RE238) with a parallel citation in parentheses to the exhibit copy contained in the appendix.

32 F. Supp. 3d 876, 880 (E.D. Tenn. 2014). "In a typical year, Gallatin generates enough electricity to supply about 565,000 homes."[6]

A byproduct of burning coal for electricity generation is coal ash or CCRs. From 1956 to 1970, Gallatin sluiced CCRs to the NRS, an unlined 65-acre site on the western edge of the peninsula.[7] (RE258, PageID#10427.) By 1973, TVA had dewatered the NRS, and TVA has not sluiced plant wastewater to the NRS for over 40 years. (Trial Tr.(Vol. 3), RE 236, PageID#9274.) Approximately 2.3 million cubic yards of coal ash are stored at the NRS.

Since 1970, Gallatin has sluiced CCRs to the Ash Pond Complex, a 476-acre surface impoundment containing a series of unlined settling and stilling ponds located north of the NRS along the Cumberland River. (RE258, PageID#10427.) The ponds treat sluiced wastewater by allowing the CCRs to settle before releasing wastewater through an NPDES-permitted outfall, Outfall 001, to the Cumberland River. (Trial Tr.(Vol. 1), RE234, PageID##8959-60.) The Complex is situated in

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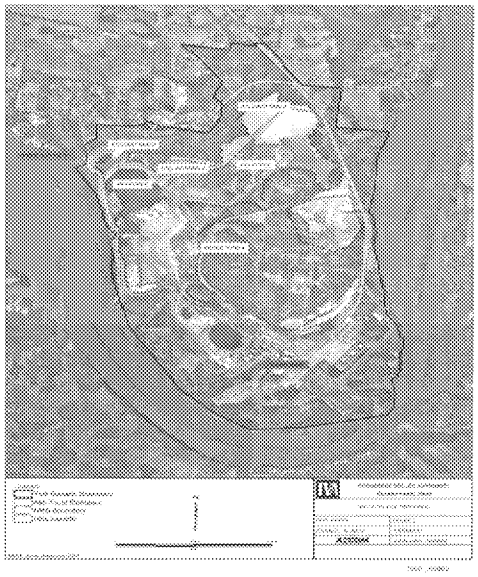
6 *Gallatin Fossil Plant*, https://lakeinfo.tva.gov/web/sites/gallatin.htm (last visited Jan. 30, 2018).

7 "Sluicing" means to flush or mix with water to facilitate movement. Final Rule, *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*, 80 Fed. Reg. 21,302, 21,357 (Apr. 17, 2015) ("CCR Rule").

karst terrain.[8] (RE258, PageID##10426-27.) Approximately 11.5 million cubic yards of coal ash are stored at the Complex.

The location of the NRS and the Complex is depicted below:



(JX231 (App.2).)

In 1976, EPA issued the first NPDES permit for Gallatin ("the Permit") authorizing wastewater discharges from the Complex to the Cumberland River. (RE258, PageID#10428; 1976 Permit, RE58-15, PageID##1857-58.) In 1986, EPA delegated to TDEC the authority "to issue and oversee permits for federal facilities such as the Gallatin Plant." (Mem. Op., RE139, PageID#5331.)

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[8] The CCR Rule defines "Karst terrain" as "an area where karst topography, with its characteristic erosional surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock." 40 C.F.R. § 257.53.

In the mid-1990s, TDEC asked TVA to develop a closure plan for the NRS pursuant to TDEC's solid waste program (RE258, PageID#10427), and in 1997, TDEC approved TVA's closure plan (TDEC Letter, JX182 (App.3) at 1). TVA completed closure in 1998. (RE258, PageID#10427). Today, TDEC regulates this "closed ***dry*** ash disposal area" commensurate with its solid waste landfill standards, including ongoing groundwater monitoring.[9] (Permit, RE1-2, PageID#106.) This "heavily vegetated" site (JX182 (App.3) at 1) is situated atop alluvium (not karst), and groundwater migration beneath the NRS is diffuse and slow (RE258, PageID#10494). The NRS is shown below:

(Unmanned Aerial System Video, DX61 (App.4), 00:35).

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9 Emphasis added here and throughout this brief unless otherwise noted.

B. TDEC's Knowledge and Contemplation of Seepage

In May 2009, TVA submitted its NPDES permit renewal application. (JX135 (App.5) at 32-33.) In September 2010, while the application was pending, TDEC received an inquiry about "TVA Gallatin NPDES & closed ash landfill," resulting in an email exchange between Robert Alexander (a TDEC permit writer and the senior reviewer for the Gallatin Permit) and Vojin Janjic (TDEC's manager of water-based systems). (JX137 (App.6).) Mr. Alexander's email cited a 2009 report by a TVA contractor, Stantec, documenting seeps at the NRS, "which the public/env groups may want us to address in future permits." (*Id.*) As for seeps from the Complex, Mr. Alexander stated that TDEC's permitting "approach is not to include them on the Permit . . . unless the seeps are confined in a pipe as a point-source discharge," "because the flow is so small it can't be measured," and because the water quality "effects of the low-volume seeps are considered *de minimus* [sic] since most ash ponds are on large bodies of water." (*Id.*)

In June 2011, the Environmental Integrity Project ("EIP")—together with Plaintiff Tennessee Clean Water Network ("TCWN") and Plaintiffs' counsel, the Southern Environmental Law Center—sent TDEC a letter asserting that the draft permit "fail[ed] to address discharges through ***seeps and groundwater migration***." (JX150 (App.7) at 1, 15-16.)

In accordance with EPA regulations, TDEC responded to the EIP comments in the Permit's Addendum to Rationale (RE258, PageID#10453), and published the Addendum to Rationale as part of the final permit document (Permit, RE1-2, PageID##61, 92-110). The environmental groups complained that the draft permit failed to address seeps, including "seeps from the closed ash disposal area." (*Id.* PageID#105.) In EIP Comment 12, TDEC explained its decision not to impose additional NPDES conditions because "TDEC experience with these seeps is that additional pollutant loading [to the Cumberland River], if possible, would be *de minimus* [sic]."[10] (*Id.*)

Plaintiff TCWN and the other environmental groups also asserted "that high concentrations of metals in groundwater are migrating to the Cumberland River and should be addressed in the NPDES permit." (*Id.*) In EIP Comment 13, TDEC responded that its Division of Solid Waste Management regulates the NRS under TDEC's solid waste program, including related groundwater conditions, and further explained its permitting approach that "***no NPDES conditions are***

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10 For every draft NPDES permit, a "fact sheet," or rationale, must be published "set[ting] forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit." 40 C.F.R. § 124.8(a); *see also* Tenn. Comp. R. & Regs. 0400-40-05-.02(72) (same). And, "when a final permit is issued," the permitting authority must prepare a response addressing "all significant comments on the draft permit . . . raised during the public comment period." 40 C.F.R § 124.17(a)(2).

established" for "groundwater conditions in the vicinity of the ash pond." (*Id.* PageID#106.) Instead, TDEC chose to assess and monitor the potential effects of any groundwater loadings on the Cumberland River through a biannual Reservoir Fish Assemblage Index. (*Id.*)

At trial, Mr. Janjic confirmed that, although TDEC's permitting approach is that seepage is not explicitly "authorized or identified in an NPDES permit," TDEC knew that "[e]very impoundment that is not [a] lined impoundment is going to have a certain amount of seepage."[11] (Trial Tr.(Vol. 2), RE235, PageID#9020.)

C. TDEC's Knowledge and Contemplation of the Potential for Karst-Related Leakage from the Ash Pond Complex

During the draft permit's public comment period, TDEC also had knowledge of the karst geology under the Complex and the potential for karst-related leakage. TDEC's September 2010 email (JX137 (App.6)) references a 2009 Stantec report documenting leakage from the Complex through karst features in the 1970s, (Stantec Report, RE164-17, PageID##6704, 6707, 6710, 6714, 6720).

And in their June 2011 letter (JX150 (App.7) at 15 n.62), the environmental groups (including Plaintiff TCWN) pointed TDEC to Stantec's 2010 Report

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11 EPA and the States have long known that storage of liquid waste in unlined surface impoundments can result in surface water impacts through groundwater seepage. EPA, *Surface Impoundment Assessment National Report*, at 1-9, 80-88 (Dec. 1983), https://nepis.epa.gov

which—under the heading "Karst Activity"—documented a history of karst-related leaks from the Complex and associated repairs (JX67 (App.8) at 8). Stantec's report explained that the Complex is underlain by limestone which is susceptible to the development of karst features such as sinkholes and solution channels and that it is impossible to "design a facility to eliminate karst-related problems." (*Id.* at 29.)

Also, in 2014, TDEC issued a solid waste permit for a new CCR landfill at Gallatin. (Trial Tr.(Vol. 2), RE235, PageID##9037-39; Trial Tr.(Vol. 4), RE237, PageID##9513-14.) In its public comments on the draft landfill permit, TDEC explicitly confirmed its knowledge and contemplation of the potential for karst leaks from the Complex, yet approved a permit that relies on the Complex's continued operation. Specifically, the new landfill is designed so that CCR leachate from the landfill is collected and pumped to Pond A of the Complex. (Trial Tr.(Vol. 2), RE235, PageID#9038; Trial Tr.(Vol. 4), RE237, PageID#9514.)

After the release of the draft landfill permit for public comment, Plaintiffs' retained witness, Mark Quarles, submitted comments to TDEC questioning why TDEC would consider allowing additional CCR leachate to be deposited in the ash ponds given their history of sinkholes and the lack of any assurance that TVA's plugging of the sinkholes had prevented leakage. (Trial Tr.(Vol. 1), RE234, PageID#8960.) In direct response to this inquiry, TDEC stated that "***the reason***

for plugging any of the sinkholes was to slow down the discharge rate of treated water to surface and subsurface water, not to stop the intended slow discharge." (*Id.*)[12]

D. TDEC's 2012 Reissuance of the Gallatin NPDES Permit and Plaintiff TCWN's Abandoned Permit Appeal

With full knowledge and contemplation of seepage and leakage, TDEC reissued the Permit for a five-year term through May 31, 2017.[13] (RE258, PageID#10428.) The Permit expressly authorizes the discharge of coal ash wastewater from the Complex to the Cumberland River through Outfall 001. (Permit, RE1-2, PageID##58, 92.) The permit's authorized discharge volume through Outfall 001 is 27 million gallons of wastewater per day. (*Id. passim.*) The location of Outfall 001 is shown below:

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12 *Response to Public Comments Summary, TVA Gallatin Fossil Plant Class II Landfill (IDL830000219)* (June 30, 2014), at 18 cmt. 63, http://environment-online.tn.gov:8080/pls/enf_reports/f?p=19035:34051:0::NO::P34051_PERMIT_ID:2361.

13 The Permit remains in effect under an administrative continuance. (RE258 at PageID#10428.)

(Unmanned Aerial System Video, DX61 (App.4), 03:23.)

Plaintiff TCWN appealed TDEC's reissuance of the Permit to the Tennessee Water Quality Control Board, alleging CWA violations because the Permit did "not address the discharge of pollutants from the ash pond via seeps abutting the river and via seeps flowing into groundwater that is hydrologically connected to the river." (Appeal Pet., RE13-1, PageID##302, 304.) These claims covered both the NRS and the Complex. (*Compare id.* PageID#296, *with* EIP Letter, JX150 (App.7) at 15-16.) In 2013, TCWN voluntarily dismissed its seepage and groundwater claims from the permit appeal proceeding. (Dismissal, RE52-1, PageID##1633-34.)

In 2014, TDEC conducted an NPDES Compliance Evaluation Inspection of the Gallatin facility and found TVA "In Compliance." (NPDES Inspection Record, JX248 (App.9).)

In 2015, in response to Plaintiffs' 60-Day Notice of Intent to Sue under the CWA, the State of Tennessee filed an enforcement action against TVA. (Mem.

Op., RE139, PageID#5334.) In the State action, "TVA is in the process of completing and executing an Environmental Investigation Plan . . . that is intended to better investigate and understand the environmental features of the Gallatin Plant site" (RE258, PageID#10430), and which is estimated to cost TVA $28 million (Trial Tr.(Vol.4), RE237, PageID##9517-21).

In 2016, during the pendency of both this and the state enforcement action, TDEC conducted another NPDES compliance inspection at Gallatin (NPDES Inspection Report, JX249 (App.10)), and TDEC again determined that "[n]o permit violations were observed, and as such there are at this time no corrective actions that need to be taken" (Compliance Evaluation Inspection Letter, JX250 (App.11) at 3).

III. THE DISTRICT COURT PROCEEDINGS

In 2015, Plaintiffs filed a citizen suit under 33 U.S.C. § 1365. (RE258, PageID#10429.) Plaintiffs alleged violations of the CWA and the Permit based on flows (seeps or leaks) of coal ash leachate from the Complex and the NRS through hydrologically connected groundwater to the Cumberland River. (Mem. Op., RE139, PageID#5332 & n.2.)

Because the State of Tennessee was (and is) pursuing a similar case against TVA under state law, the district court applied the CWA's diligent prosecution bar

(*id.* PageID##5338-46), and limited the trial's scope to the allegations it deemed non-overlapping:

> (1) "discharges from the Non-Registered Site into the Cumberland River;" and
>
> (2) "discharges from the Ash Pond Complex via hydrologic flows that are not seeps alone, with 'seeps alone' being defined as 'leaks consisting solely of slow pore-space seepage of contaminants.'"

(RE258, PageID#10519).[14]

Later, the district court reasoned that, if a leak from the Complex went through a rock fissure (i.e., a karst feature) during any portion (no matter how miniscule) of its subsurface path to the Cumberland River, it was not a "***seep alone***" because some part of its path involved non-seepage flow. (*Id.* PageID#10523.)

Following a bench trial, the district court entered judgment against TVA, holding that the CWA applies to discharges of pollutants through hydrologically connected groundwater to navigable waters where the connection is "direct, immediate, and can generally be traced." (*Id.* PageID#10505.) The court found that such a hydrological connection existed for (1) seeps from the NRS "through

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14 The district court determined that, as to the NRS, "the State Enforcement Action is targeted at groundwater contamination" (Mem. Op., RE139, PageID##5341-42), and that, as to the Complex, "the State's complaint can plausibly be read to refer to both groundwater and surface water contamination" (*id.* PageID#5342).

rainwater vertically penetrating the Site, groundwater laterally penetrating the Site, or both" (*id.* PageID##10520-21); and (2) leaks from the Complex involving karst features (*id.* PageID#10531).[15]

The district court held that the NRS is a point source (*id.* PageID#10511), and that the Permit does not authorize discharges from the NRS (*id.* PageID#10520). The court found karst-related leaks from the Complex (i.e., seeps of coal ash leachate from the Complex involving flow through a karst feature somewhere along the path to the River) to be actionable based on its finding that such flows were not within TDEC's reasonable contemplation. (*Id.* PageID#10532.)

The district court found TVA in full compliance with the Permit's Operation and Maintenance and Notice provisions (*id.* PageID##10533-34), but concluded that karst-related leakage from the Complex violated the Permit's Removed Substances provision (Part I.A.(c)) and Sanitary Sewer Overflow provision (Part II.C.(3.b)) (*id.* PageID##10532-34).

In making these findings, the district court did not address (1) the legal effect of TDEC's explicit decision to continue regulating the NRS under its solid waste program instead of its NPDES authority; or (2) the record evidence

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15 All findings of karst-related leakage are limited to the Complex. The NRS "is not even located in karst terrain." (RE258, PageID#10539.)

demonstrating TDEC's knowledge and contemplation of the likelihood of ongoing karst-related leakage of CCR leachate from the Complex through groundwater to the Cumberland River.

The district court did recognize that any actionable seeps or leaks are limited in size and rate of outflow (*id.* PageID##10486, 10528), and that the record is "***largely bereft*** of evidence that would lead the Court to conclude that TVA's violations are particularly severe, in terms of the harm done or the amount of pollutants released" (*id.* PageID#10535).

TVA presented evidence showing that closure-in-place at the Complex (i.e., dewatering and installing a geosynthetic cap in accordance with the CCR Rule) and installing a geosynthetic cap on the long-ago-dewatered NRS would address the groundwater flows at issue here. (Lang Direct Test., RE229-1, PageID##8565-79, 8581-84.) TVA also presented unrebutted evidence showing that the excavation and offsite removal requested by Plaintiffs (Compl., RE1, PageID#53) poses substantial environmental and safety risks, is inconsistent with TVA's obligations under the CCR Rule, and could cost TVA's ratepayers as much as $2 billion (Lang Direct Test., RE229-1, PageID##8579-80; Trial Tr.(Vol. 4), RE237, PageID#9521).

Despite finding "***scant***" evidence of harm (RE258, PageID#10535) and that "contamination from the Gallatin Plant has, at least in recent years, apparently

been mild" (*id.* PageID#10538), the district court imposed an extreme remedy—enjoining TVA to excavate and remove the 13.8 million cubic yards of coal ash stored at the NRS and the Complex (*id.* PageID#10542; Order, RE259).[16]

SCOPE OF REVIEW

This Court reviews a district court's factual findings for clear error and its legal conclusions *de novo*. *Schroyer v. Frankel*, 197 F.3d 1170, 1173 (6th Cir. 1999). Review of statutory construction is *de novo*. *Bowling Green v. Martin Land Dev. Co.*, 561 F.3d 556, 558 (6th Cir. 2009).

Whether the CWA's permit shield applies is a question of law, *Wis. Res. Prot. Council v. Flambeau Mining Co.*, 727 F.3d 700, 707 (7th Cir. 2013), as is the related question of whether a CWA citizen suit is an impermissible collateral attack on the NPDES permit. *See id.* at 707-11.

While this Court reviews a district court's grant of an injunction for abuse of discretion, it reviews underlying factual findings for clear error and underlying

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16 Because the district court declined to impose civil penalties requested by Plaintiffs (RE258, PageID##10420-21), TVA has no basis now to appeal the court's earlier, erroneous ruling denying TVA's motion to dismiss Plaintiffs' claim for civil penalties (RE139, PageID##5348-53). Under *U.S. Dep't of Energy v. Ohio*, 503 U.S. 607 (1992), civil penalties for past CWA violations are not available against the Government, including TVA. *See U.S. Postal Serv. v. Flamingo Indus. (USA) Ltd.*, 540 U.S. 736, 743 (2004); *FDIC v. Meyer*, 510 U.S. 471 (1994). TVA reserves the right to appeal this legal error if it resurfaces later in the case.

legal conclusions *de novo*. *United States v. City of Detroit*, 329 F.3d 515, 520 (6th Cir. 2003). A district court "by definition" abuses its discretion where it makes an error of law. *Koon v. United States*, 518 U.S. 81, 100 (1996).

SUMMARY OF THE ARGUMENT

I. This case concerns ***how*** pollution from coal ash disposal and storage sites is regulated—not ***whether*** it is regulated. Congress chose not to regulate the migration of pollutants through groundwater as point source discharges under the CWA and did so with knowledge that such pollutants eventually may enter navigable waters. Instead, when it enacted the CWA, Congress chose to leave groundwater regulation to the states under the CWA's nonpoint source program. Every tool of statutory construction forecloses the district court's hydrologic connection liability holding. For this reason alone, the district court's liability holding should be reversed.

But there is more. The district court's hydrologic connection holding directly conflicts with the Resource Conservation and Recovery Act ("RCRA")[17] and the CCR Rule. The CCR Rule provides a comprehensive regulatory approach to address the operation and closure of coal ash disposal sites, including any

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17 42 U.S.C. §§ 6901-92k.

associated groundwater impacts from the treatment, storage, and disposal of coal ash.

The district court's unprincipled expansion of CWA liability should not displace Congress's enactment of RCRA, a later-in-time statutory regime that is specifically tailored to address groundwater pollution resulting from the storage and disposal of solid waste. If the district court were correct that the migration of coal ash leachate through groundwater is illegal unless permitted under the CWA, the perverse result would be to thwart implementation of the CCR Rule's more precisely tailored regime, given RCRA's industrial point source discharge exclusion.[18]

Finally, because the district court's invention of a "direct" connection test is atextual and unworkable (and not even satisfied in this case), the district court's liability holding cannot stand.

II. Even apart from its erroneous rewriting of the CWA, the interrelated doctrines of collateral attack, permit shield, and fair notice supply independent grounds for reversal: the district court impermissibly second-guessed TDEC's informed decision to regulate the NRS under its solid waste program (not as a CWA point source) as well as TDEC's affirmative regulatory decision not to

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18 42 U.S.C. § 6903(27).

impose NPDES conditions on the potential for karst-related leaks from the Complex.

First, the district court erred in allowing a citizen suit to be used as a collateral attack on TDEC's affirmative decision to regulate the NRS under its solid waste program and in concluding that the heavily vegetated NRS is a point source.

Second, the district court erred in rejecting the permit shield defense for the Complex, given TDEC's informed regulatory decision not to prohibit or otherwise limit karst-related leaks from that site. The district court reasoned that the absence of explicit permitting authorization for karst-related leakage required a liability finding. But such reasoning upends the permit shield doctrine. The lack of explicit permitting conditions only begins the inquiry, which asks whether the regulator reasonably contemplated the discharge at issue notwithstanding the absence of explicit permit conditions.

Here, the uncontroverted evidence from the administrative record and from TDEC's public statements shows that, during and after the permitting process, TDEC knew of historical karst leakage issues at the Complex; affirmatively contemplated "intended slow discharges" from beneath the Complex through karst features, including sinkholes; and declined to impose NPDES permit conditions (despite the request of environmental groups to do so). Instead, TDEC chose to

address the potential effects of seeps and leaks to groundwater through biological monitoring of the Cumberland River.

Under the finality and fair notice principles inherent in the permit shield doctrine, TDEC's informed choices to regulate in a manner different from what the environmental groups requested cannot be challenged in a citizen suit during the permit term. In allowing otherwise, the district court wrongly usurped TDEC's permitting decisions.

III. The district court compounded the error of its faulty liability decision and per se abused its discretion by imposing injunctive relief with no showing of irreparable harm. It further abused its discretion by improperly balancing the equities, ordering TVA to excavate 13.8 million cubic yards of coal ash at a potential cost to TVA's ratepayers of $2 billion based only on "scant" evidence of harm and despite proof that, as compared to closure-in-place, excavation and removal will increase the risk of harm to the environment and the public. At a minimum, the injunction must be vacated and the case remanded for the district court to balance the equities properly, including consideration of the regulatory framework established under the CCR Rule.

ARGUMENT

I. THE DISTRICT COURT'S LIABILITY HOLDING SHOULD BE REVERSED BECAUSE THE HYDROLOGIC CONNECTION THEORY IS CONTRARY TO THE TEXT, STRUCTURE, AND HISTORY OF THE CWA, CONFLICTS WITH REGULATION OF COAL ASH UNDER RCRA, AND IS UNWORKABLE.

The district court held "that a cause of action based on an unauthorized point source discharge may be brought under the CWA based on discharges ***through*** groundwater, if the hydrologic connection . . . is direct, immediate, and can generally be traced." (RE258 at PageID#10505.) In so holding, the district court impermissibly rewrote the statute, expanding CWA liability beyond Congress's authorization, and created an unnecessary conflict with regulation of coal ash under RCRA and the CCR Rule.

A. The Migration of Pollutants Through Groundwater Is Not An Unlawful "Discharge of Pollutants" Under the CWA.

1. The text and structure of the CWA demonstrate that the phrase "discharge of pollutants" excludes the migration of pollutants through groundwater.

"[T]he starting point for interpreting a statute is the language of the statute itself." *Consumer Prod. Safety Comm'n v. GTE Sylvania, Inc.*, 447 U.S. 102, 108 (1980). Here, the relevant provision is Section 301(a) of the CWA, which provides that the "discharge of any pollutant by any person shall be unlawful" except when in compliance with, *inter alia*, an NPDES permit under 33 U.S.C. § 1342. 33 U.S.C. § 1311(a). The "key portion of the statute" is the phrase "discharge of

pollutants." *Nat'l Wildlife Fed'n v. Consumers Power Co.*, 862 F.2d 580, 583 (6th Cir. 1988). It is the act made unlawful by Section 301(a) unless authorized by an NPDES permit. *Exxon Corp. v. Train*, 554 F.2d 1310, 1318 (5th Cir. 1977).

Starting with the text, Congress defined "discharge of pollutants" as "any addition of any pollutant to navigable waters from any point source." 33 U.S.C. § 1362(12). A "point source" is "any discernable, confined and discrete conveyance . . . from which pollutants are or may be discharged." *Id.* § 1362(14). The point source must "convey the pollutant to 'navigable waters.'" *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 105 (2004). "Conveyance" is the definition's operative term, *id.*, and it "evoke[s] images of physical structures and instrumentalities that systematically act as a means of conveying pollutants from an industrial source to navigable waterways," *United States v. Plaza Health Labs., Inc.*, 3 F.3d 643, 646 (2d Cir. 1993).

Significantly, Congress did not reference groundwater in any of these definitions and excluded the term groundwater from "most of the regulatory provisions of Title III of the CWA, including section 301(a)," *Kelley ex rel. Mich. v. United States*, 618 F. Supp. 1103, 1105 (W.D. Mich. 1985), manifesting Congress's intent not to regulate groundwater migration as a point source discharge. And no reasonable reading of either "point source" or "navigable waters" encompasses groundwater.

Groundwater is not a "point source." 33 U.S.C. § 1362(14). By its nature, groundwater is "a diffuse medium and not the kind of discernible, confined, and discrete conveyance contemplated by the CWA's definition of 'point source.'" *Ky. Waterways Alliance v. Ky. Utils. Co.*, No. 5:17-292-DCR, 2017 WL 6628917, at *10 (E.D. Ky. Dec. 28, 2017) (internal quotation marks omitted); *see also Froebel v. Meyer*, 217 F.3d 928, 937 (7th Cir. 2000) ("The structure of the CWA's definition of 'point source' . . . connotes the terminal end of an artificial system for moving water, waste, and other materials."). As the Tenth Circuit has recognized, "[g]roundwater seepage that travels through fractured rock would be nonpoint source pollution, which is not subject to NPDES permitting." *Sierra Club v. El Paso Gold Mines, Inc.*, 421 F.3d 1133, 1140 n.4 (10th Cir. 2005).

Also, throughout the CWA, Congress carefully distinguished between navigable waters and ground waters,[19] and "Congress generally acts intentionally when it uses particular language in one section of a statute but omits it in another." *Dep't of Homeland Sec. v. MacLean*, 135 S. Ct. 913, 919 (2015). There is no textual basis for interpreting "navigable waters" to cover groundwater.[20]

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[19] *See, e.g.*, 33 U.S.C. §§ 1252(a); 1254(a)(5); 1256(e)(1); 1282(b)(2); 1314(a)(1)-(2); 1314(f); 1329(b)(2)(A); 1329(h)(5)(D); 1329(i)(1).

[20] The term "navigable waters" is defined as "the waters of the United States." 33 U.S.C. § 1362(7). It "delineates the geographic reach of many of the Act's substantive provisions, including the" NPDES permitting program, *Nat'l Ass'n of*

Beyond the plain meaning of the specific text at issue, the "design of the statute as a whole," *Elgharib v. Napolitano*, 600 F.3d 597, 601 (6th Cir. 2010) (internal quotation marks omitted), confirms that the statute cannot naturally be read to encompass migration of pollutants through groundwater.

The CWA "prohibits the discharge of any effluent into a navigable body of water," *Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 489 (1987), and effluent limitations on the "quantities, rates, and concentrations" of pollutants discharged "from point sources into navigable waters," 33 U.S.C. § 1362(11), are the linchpin of the NPDES permitting program. "Such direct restrictions" facilitate enforcement. *EPA v. Cal. ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 204 (1976); *see also Nat'l Ass'n of Mfrs.*, 583 U.S.__, 2018 WL 491526, at *9-10. But limits on the "quantities, rates, and concentrations" for observable and measurable flows through conveyances are ill-suited to address groundwater migration, which is largely immeasurable and unobservable (as the evidence in this case well-demonstrates)—yet more proof that Congress never intended groundwater flows to be covered by Section 301(a).

(. . . continued)
Mfrs. v. Dep't of Defense, 583 U.S.__, 2018 WL 491526, at *5 (Jan. 22, 2018), and the term refers to surface waters—"rivers, streams, and other hydrographic features more conventionally identifiable as 'waters.'" *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 131 & n.8 (1985).

Consideration of the broader statutory structure also shows that Congress intended to regulate the migration of pollutants through groundwater as nonpoint source pollution. Congress "drew a distinct line" between point source and nonpoint source pollution. *Or. Natural Res. Council v. U.S. Forest Serv.*, 834 F.2d 842, 849 (9th Cir. 1987). "Point sources are subject to direct federal regulation and enforcement under" the NPDES program. *Id.* Nonpoint sources, in contrast, are subject to "state and local pollution control programs" and not regulated under NPDES. *Consumers Power*, 862 F.2d at 588. Directly pertinent here, pollution "resulting from . . . the disposal of pollutants [into] subsurface excavations" is nonpoint source pollution. *See* 33 U.S.C. § 1314(f). And EPA has long-recognized that landfills, lagoons, basins, and pits (such as the NRS and the Complex) are "subsurface excavations."[21]

Ultimately, adopting the theory that "the discharge of a pollutant . . . *through* the hydrologically connected groundwater to a navigable water could constitute the addition of a pollutant *to* a navigable water *from* a point source, even though the groundwater itself is neither a point source nor a navigable water. . . . would be inconsistent with the text and structure of the CWA." *Ky. Waterways*, 2017 WL 6628917, at *11 (emphases in original); *see also Vill. of Oconomowoc Lake v.*

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21 EPA, *Ground Water Pollution From Subsurface Excavations*, at 1, 123-35, 151-77 (1973), https://nepis.epa.gov

Dayton Hudson Corp., 24 F.3d 962, 965 (7th Cir. 1994) (rejecting hydrologic connection theory); *Kelley,* 618 F. Supp. at 1106 (granting the United States' motion to dismiss CWA citizen suit based on pollution from a Government facility through groundwater because the CWA does not apply to the migration of pollutants through groundwater that is hydrologically connected to a navigable surface water).[22]

2. Legislative history confirms that the phrase "discharge of pollutants" excludes the migration of pollutants through groundwater.

If Congress had intended for the migration of pollutants through groundwater to be unlawful under Section 301(a), a simple solution lay close at hand: include the word "groundwater" in the definition of "discharge of

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[22] Recently, the United States has taken a different position. See Brief for the United States as Amicus Curiae in Support of Plaintiffs-Appellees, *Haw. Wildlife Fund v. Cnty. of Maui*, No. 15-17447 (9th Cir. May 31, 2016). The district court did not purport to defer to any Government position on this issue, and in all events, this "sometimes expressed" view was never promulgated as a formal rule and is not entitled to deference. *Ky. Waterways*, 2017 WL 6628917, at *11 & n.2. It also conflicts with the position taken in *Kelley* and in *Amigos Bravos v. Molycorp, Inc.*, No. CIV 95-1497 JP/DJS, Mem. Op. & Order (D.N.M. Sep. 11, 1997) (RE52-2, PageID##1638-40), *aff'd*, No. 97-2327, 1998 WL 792159 (10th Cir. Nov. 13, 1998). No deference is due to the Government's inconsistent positions. *See Fed. Maritime Bd. v. Isbrandtsen Co.*, 356 U.S. 481, 499-500 (1958).

pollutants" at 33 U.S.C. § 1362(12). But Congress considered and rejected this very proposal.[23]

Despite "recogniz[ing] the ***essential link between ground and surface waters and the artificial nature of any distinction***" and acknowledging "that rivers, streams and lakes themselves are largely supplied with water from the ground," the Senate committee rejected "[s]everal bills" that would have extended CWA regulation over groundwater because "the jurisdiction regarding groundwaters is so complex and varied from State to State." S. Rep. No. 92-414, at 73 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3739.

The House committee likewise chose not to regulate the migration of pollutants through groundwater as point source discharges under the CWA. In testimony before that committee, EPA sought authority over discharges to hydrologically connected groundwater to ensure that EPA "authority over interstate and navigable streams cannot be circumvented" and to "maintain[] a control over all the sources of pollution, be they discharged directly into any stream or ***through the ground water table.***" *Water Pollution Control Legislation –*

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[23] Given the CWA's unambiguous text and structure, there is no need to resort to legislative history. Examination of such history only underscores Congress's clear intent to exclude groundwater migration from "discharge of pollutants." *See Long v. Insight Commc'ns of Cent. Ohio, LLC*, 804 F.3d 791, 797 (6th Cir. 2015) (examining legislative history to confirm textual analysis of statutory terms).

1971 (Proposed Amendments to Existing Legislation): Hearings before H. Comm. on Pub. Works, 92nd Cong. 230 (1971) (statement of Hon. William Ruckelshaus, Administrator, EPA), Addendum at 97.

Representative Aspin even proposed an amendment to the House bill because he thought it a "glaring inconsistency" that groundwater appeared elsewhere in the bill, "[b]ut when it comes to enforcement . . . the section on permits and licenses, then ground water is suddenly missing." 118 Cong. Rec. 10,666 (1972), Addendum at 102. In words echoing the district court's reasoning below, he stated that, "[i]f we do not stop pollution of ground waters ***through seepage*** and other means, ***ground water gets into navigable waters***, and to control only the navigable water and not the ground water makes no sense at all." *Id.*

The proposed amendment would have inserted the term "ground waters" after "navigable waters" in Section 502(12), the key statutory definition for "discharge of pollutants." *Id.* But the House rejected the amendment by a vote of 86 to 34. *Id.* at 10,669, Addendum at 105; *see also Exxon*, 554 F.2d at 1328-29 & n.31 (detailing the House floor debate).

This "unmistakably clear legislative history . . . demonstrate[s] that Congress did not intend the Clean Water Act to extend federal regulatory and enforcement authority over groundwater contamination," even if it eventually migrates to navigable waters. *Kelley*, 618 F. Supp. at 1107.

B. The District Court's Rewriting of the CWA Directly Conflicts With RCRA and the CCR Rule.

The "meaning of one statute may be affected by other Acts, particularly where Congress has spoken subsequently and more specifically to the topic at hand." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000).

Here, although Congress eschewed regulation of groundwater migration as a point source discharge under the CWA, it later addressed groundwater pollution in other statutes. Specifically, in 1976, Congress passed RCRA as "a comprehensive environmental statute that governs the treatment, storage, and disposal of solid . . . waste," *Meghrig v. KFC W., Inc.*, 516 U.S. 479, 483 (1996), and directed EPA to develop criteria specially tailored to address groundwater contamination from solid waste disposal facilities, including landfills and surface impoundments.[24] 42 U.S.C. § 6949a(a); 40 C.F.R. § 257.3-.4.

Unlike the CWA, RCRA regulates groundwater contamination from CCR disposal and storage sites. In 2015, acting under its RCRA Subtitle D authority,[25] EPA promulgated the CCR Rule regulating CCR disposal as nonhazardous solid waste. 80 Fed. Reg. 21,302. In doing so, EPA recognized that "approximately

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[24] Solid waste includes liquid material resulting from industrial operations. 42 U.S.C. § 6903(27).

[25] 42 U.S.C. §§ 6941–49a.

63 percent of currently operating surface impoundments and landfills are unlined, and thus more prone to leach contaminants into groundwater." *Id.* at 21,326.

The CCR Rule addresses, *inter alia*, "groundwater contamination from the improper management of CCR in landfills and surface impoundments." *Id.* at 21,303. And it "reflect[s] Congressional intent that protection of groundwater be a prime objective of any new solid waste regulations." *Id.* at 21,396. The CCR Rule provides specifically for groundwater monitoring (which the CWA does not), 40 C.F.R. §§ 257.90-257.95, and groundwater remediation (which the CWA does not), 40 C.F.R. §§ 257.96-257.98.

The CCR Rule, of course, is a final agency rule. In contrast, the district court found support for its hydrologic connection holding in a hodgepodge of nonbinding EPA statements (RE258, PageID#10503-05), none of which were the result of notice and comment rulemaking. EPA's "[c]ollateral reference[s] to" the hydrologic connection issue are "not a satisfactory substitute for focused attention in rule-making or adjudication." *Oconomowoc Lake*, 24 F.3d at 966.

Congress endorsed the CCR Rule regulatory regime in 2016, with passage of the Water Infrastructure Improvements for the Nation Act, amending RCRA to authorize states to submit for EPA approval a state permit program for regulating CCR units that is "at least as protective as" the CCR Rule. 42 U.S.C. § 6945(d).

Importantly, RCRA excludes from the term "solid waste" any "industrial discharges which are point sources subject to" NPDES permitting. 42 U.S.C. § 6903(27); *United States v. Dean*, 969 F.2d 187, 194 (6th Cir. 1992) (analyzing the exclusion). Thus, RCRA does not apply if a discharge is "*required* by the Clean Water Act to have a permit," *Inland Steel Co. v. EPA*, 901 F.2d 1419, 1422 (7th Cir. 1990) (italics in original), "regardless of whether there is a permit in place." *Little Hocking Water Ass'n, Inc. v. E.I. du Pont Nemours & Co.*, 91 F. Supp. 3d 940, 959-60 & n.5 (S.D. Ohio 2015). "The purpose of th[is] exemption . . . is to avoid duplicative regulation . . . ." *Inland Steel*, 901 F.2d at 1423; *see also* 45 Fed. Reg. 33,084, 33,098 (May 19, 1980) ("The obvious purpose of the industrial point source discharge exclusion in Section 1004(27) was to avoid duplicative regulation of point source discharges under RCRA and the Clean Water Act.").

Because regulation under RCRA and NPDES is mutually exclusive, the consequence of upholding the decision below would be that neither the Complex nor the NRS is subject to RCRA regulation. The district court's shoehorning of groundwater pollution into the NPDES permitting program is reversible error because it would thwart implementation of the more specific and later-in-time regime that Congress enacted and that EPA is enforcing to address the precise problem at issue here: groundwater pollution from the storage and disposal of

solid waste. *See Credit Suisse Sec. (USA) LLC v. Billing*, 551 U.S. 264, 285 (2007) (holding that securities laws implicitly preclude application of antitrust laws where statutes are "clearly incompatible" and the securities statutes more precisely address the conduct at issue and are being actively enforced by regulators).

C. The District Court's Atextual Expansion of CWA Liability is Unworkable.

Disregarding the "three-step legislative-interpretation framework," *Elgharib*, 600 F.3d at 601, and without considering the impairment of other regulatory regimes, the district court held that the CWA supports a cause of action "based on discharges through groundwater, if the hydrologic connection between the [point] source is . . . direct, immediate, and can generally be traced." (RE258, PageID#10505.) Although conceding that "[p]erfect traceability is ultimately a technological and epistemological issue, not a legal one," the district court then announced an unworkable legal standard: "[a]s long as a connection is shown to be real, direct, and immediate, there is no statutory, constitutional, or policy reason to require that every twist and turn of its path be precisely traced." (*Id.* PageID##10504-05.)

The term "direct hydrologic connection" appears nowhere in the text of the CWA. And the district court did not attempt to define it, perhaps because "defining the term 'direct' is fraught with technical peril." James W. Hayman, *Regulating Point-Source Discharges to Groundwater Hydrologically Connected to*

Navigable Waters: An Unresolved Question of Environmental Protection Agency Authority Under the Clean Water Act, 5 Barry L. Rev. 95, 126 (2005).

Adding modifiers that a hydrologic connection "be real, direct, and immediate" does not help. It is a "basic principle" that "groundwater generally flows through the earth toward surface waters that ultimately connect to the sea." (RE258, PageID#10426.) All groundwater connections are, thus, "real." And the district court made no attempt to limit or otherwise define the modifiers "direct" or "immediate," terms which provide no added clarity. It also searched in vain for actual, current evidence showing that its standard had been satisfied.[26]

The unworkability of the district court's hydrologic connection test is exacerbated in the citizen-suit context, particularly one which attacks a regulatory decision not to impose NPDES permit conditions. *See infra* Part II. Congress recognized that "an objective evidentiary standard will have to be met by any citizen who brings an action under this section." S. Rep. No. 92-414, at 79 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3745. In the absence of measurable effluent

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[26] The district court acknowledged Plaintiffs' inability "to identify specific sinkholes or other leaking karst features in the Ash Pond Complex in the present day." (RE258, PageID#10526.) It also recognized the impossibility of determining how much, if any, of the sporadic groundwater contamination that was observed was the result of ongoing seeps or leaks, given the undisputed record of past (and repaired) leakage. The court ultimately concluded, however, that "[g]iven the inconclusive nature of the sampling, the evidence of the pond's leak-prone construction and history carries the day." (*Id.* PageID#10530.)

limitations for groundwater migration, however, the district court crafted its own subjective standard, which it then deemed satisfied by epistemological inferences drawn from hydrogeology principles rather than proof of the "quantit[y], rate[], and concentration[]" of pollutants discharged. 33 U.S.C. § 1362(11).

Ultimately, there is no hint that Congress intended, *sub silentio*, to regulate the migration of pollutants through groundwater as a point source discharge, no matter how direct and traceable the hydrologic connection to navigable waters might be, and there is certainly no clear statement manifesting such intent. *Cf. Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014) (rejecting EPA Clean Air Act interpretation as unreasonable because Congress is expected "to speak clearly" before courts will read into statutory text regulatory authority "of vast 'economic and political significance'" (quoting *Brown & Williamson*, 529 U.S. at 160)).

In sum, the district court erred by rewriting the statute to expand CWA point source liability to encompass seepage and leakage through groundwater to navigable waters when Congress, faced with "the essential link between ground and surface waters," S. Rep. No. 92-414, at 73 (1971), expressly declined to do so.

II. THE DISTRICT COURT'S LIABILITY HOLDING ALSO SHOULD BE REVERSED BECAUSE IT IGNORED UNCONTROVERTED EVIDENCE THAT TDEC KNOWINGLY CHOSE NOT TO ESTABLISH NPDES CONDITIONS FOR SEEPS AND LEAKS TO GROUNDWATER IN THE GALLATIN PERMIT.

"The main exception" to the CWA's strict liability regime for point source discharges to navigable waters is the NPDES permit program under 33 U.S.C. § 1342. *Sierra Club v. ICG Hazard, LLC*, 781 F.3d 281, 284 (6th Cir. 2015). Here, the administrative record developed by TDEC when it reissued the Gallatin Permit documents TDEC's affirmative choice ***not to establish*** NPDES permit conditions on the NRS or on leaks from the Complex to groundwater via karst features. (Permit, RE1-2, PageID##105-06.) Under these circumstances, the district court's liability decision is precluded by the CWA's permit shield and the related collateral attack doctrine. No matter how this Court resolves the statutory construction question, the informed regulatory decisions made by TDEC to address groundwater migration through means other than NPDES permit conditions supply independent grounds for reversal.

The district court's flawed application of the collateral attack and permit shield doctrines undercuts the due process and fair notice objectives these doctrines serve. "[A] regulated party must be given 'fair warning' of what conduct is prohibited or required of it." *Flambeau Mining Co.*, 727 F.3d at 707. It is "basic hornbook" law that parties subject to administrative penalties must be provided

with "fair notice" by the regulator. *Gen. Elec. Co. v. EPA*, 53 F.3d 1324, 1328-29 (D.C. Cir. 1995).

The district court failed to give binding effect to TDEC's regulatory decisions documented in "the Gallatin Plant's NPDES permit and accompanying materials." (RE258, PageID#10539.) The court faulted the Permit for not including a more "stringent, unambiguous, and comprehensive framework for addressing those seeps or any other leaks" and then unilaterally imposed an *ultra vires* fix to the problem it had manufactured. (*Id.*) But under the interrelated collateral attack and permit shield doctrines, it is precisely TDEC's informed and documented decision not to impose explicit conditions for groundwater flows, despite its awareness of their likelihood, that relieves TVA of "having to litigate in an enforcement action the question whether [its] permit[] [is] sufficiently strict." *E.I. du Pont de Nemours & Co. v. Train*, 430 U.S. 112, 138 n.28 (1977); *see also* 45 Fed. Reg. 33,290, 33,312 (codified at 40 C.F.R § 122.5) ("If a plaintiff in such a [citizen] suit argued that regulatory requirements outside the conditions of the permit should be applied and enforced, that would probably amount to an improper collateral attack on the conditions of the permit.").

A. TDEC's Decision that the Non-Registered Site Should Be Regulated as Solid Waste, Not as a CWA Point Source, Cannot Be Collaterally Attacked in a Citizen Suit.

Since the mid-1990s, TDEC's Division of Solid Waste Management has regulated the NRS commensurate with TDEC's standards for Class II Industrial Landfills, including groundwater monitoring. (Permit, RE1-2, PageID#106.) The permit record further shows that TDEC knew that the NRS "likely has some seeps." (TDEC Email, JX137 (App.6).) During the public comment period, environmental groups asserted that the Permit should address seeps and groundwater migration at the NRS. (EIP Letter, JX150 (App.7) at 15-16); Trial Tr.(Vol. 2), RE235, PageID##9031-32.) But, as documented in the Addendum to Rationale, TDEC elected to continue regulating groundwater conditions at the NRS under its RCRA solid waste program instead of establishing NPDES permit conditions. (Permit, RE1-2, PageID##105-06.)

During the permit term, TDEC's express decision to regulate the NRS as solid waste is not subject to collateral attack through a CWA citizen suit. *Gen. Motors Corp. v. EPA*, 168 F.3d 1377, 1382–83 (D.C. Cir. 1999) (the CWA precludes a collateral attack on a state-issued NPDES permit in a federal enforcement proceeding). The district court legally erred by holding otherwise, stating that the Permit did not authorize discharges from the NRS and proceeding no further. (RE258, PageID#10520.)

The district court had no authority to override TDEC's informed decision not to regulate the NRS through Gallatin's Permit, especially where, as here, Plaintiffs voluntarily abandoned their permit appeal on this issue. *See supra* p.14. A citizen-suit cannot be used to re-litigate this issue.

The decision in *Amigos Bravos v. Molycorp, Inc.*, No. 97-2327, 1998 WL 792159, at *4 (10th Cir. Nov. 13, 1998), is on point. There, the court held that "the CWA's citizen suit provisions" could not be used to challenge the "discharge of pollutants from [permittee's] rock waste piles without an NPDES waste permit" where EPA determined that seeps from the waste piles to hydrologically connected groundwater were not point sources under the NPDES program and the plaintiffs failed to appeal EPA's permitting decision. *See also Potter v. ASARCO Inc.*, No. 8:96CV555, 1999 WL 33537055, at *5 (D. Neb. Apr. 23, 1999) (failure to appeal the permit issuance "divests this court of jurisdiction to collaterally review the director's NPDES permit decision").

The district court's erroneous conclusion that the NRS is a point source only confused matters more. Viewing the NRS as "discernable, discrete, and confined" (RE258, PageID#10510), the district court wrongly concluded that the NRS meets "the definition of 'point source' because TVA has channeled the flow of pollutants themselves . . . by forming a discrete, unlined concentration of coal ash" (*id.* PageID#10509).

The district court's analysis is backwards; it is the conveyance—not the source of the pollutants—which must be discernable, discrete, and confined to qualify as a point source. 33 U.S.C. § 1362(14); *S. Fla. Water Mgmt. Dist.*, 541 U.S. at 105; *see also supra* p.25 (discussing definition of point source).

Similarly flawed is the reasoning that the NRS is a conveyance because it is "unlined and leaking pollutants" (RE258, PageID#10511), where the only identified transport mechanism for pollutants is "infiltration by outside water" (*id.* PageID#10509). Plaintiffs' witness conceded that, by 1973, the NRS "had been drained of liquids" (Trial Tr.(Vol. 1), RE234, PageID#8932), and that following closure in 1998, the NRS "is no longer designed to hold an accumulation of liquid" (*id.* PageID#8933). Simply put, there is no contained or impounded water to leak; only acres of tree-covered ground above stored solid waste.[27]

The district court found that "rainwater vertically penetrating the Site, [and] groundwater laterally penetrating the Site" caused the "leakage." (RE258, PageID#10521). But rainwater and groundwater cannot "fairly be described as a 'discernible, confined and discrete conveyance.'" *Tri-Realty Co. v. Ursinus Coll.*, No. 11-5885, 2013 WL 6164092, at *8 (E.D. Pa. Nov. 21, 2013). Instead, rainwater and groundwater migration constitute nonpoint source pollution.

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27 *See supra* p.8 (NRS image).

Greater Yellowstone Coal. v. Lewis, 628 F.3d 1143, 1152-53 (9th Cir. 2010); *Simsbury-Avon Pres. Soc'y, LLC v. Metacon Gun Club, Inc.*, 575 F.3d 199, 220-21 (2d Cir. 2009) (discussing "EPA's guidance on nonpoint source pollution"); *Ky. Waterways*, 2017 WL 6628917, at *10-11.[28]

B. Because TDEC Reasonably Contemplated Karst-Related Leakage From the Ash Pond Complex Yet Chose Not to Establish NPDES Permit Conditions, the CWA's Permit Shield Applies.

As for the Complex, liability is precluded by operation of the CWA's permit shield, 33 U.S.C. § 1342(k). This Court has held that the permit shield "insulates permit holders from liability for certain discharges of pollutants that the permit does not explicitly mention." *ICG Hazard*, 781 F.3d at 285. The permit shield applies if (1) the discharge at issue is disclosed to the permitting authority during the permitting process, and (2) was within the permitting authority's reasonable contemplation at the time the permit was issued. *Id.* at 290.

Moreover, the permit shield applies to discharges of pollutants which the "'administrative record explicitly identif[ies] as controlled through indicator parameters'" and to discharges for which no specific limits or conditions are established but are documented "'in the administrative record which is available to

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[28] *See also* EPA, *What is Nonpoint Source?* (explaining that nonpoint source pollution includes "***seepage*** . . . caused by rainfall . . . moving over or through the ground"), https://www.epa.gov/nps/what-nonpoint-source (last visited Jan. 30, 2018).

the public.'" *Sierra Club v. ICG Hazard, LLC*, No. 6:11-cv-00148-GFVT-HAI, 2012 WL 4601012, at *6 (E.D. Ky. Sept. 28, 2012) (quoting EPA's Revised Policy Statement on Scope of Discharge Authorization and Shield Associated with NPDES Permits, at 2-3 (1995)), *aff'd*, 781 F.3d 281 (6th Cir. 2015). And this Court has ruled that "post-issuance evidence," too, can demonstrate that the alleged unlawful discharges were within the regulator's reasonable contemplation during NPDES permitting. *ICG Hazard*, 781 F.3d at 290.

The district court failed to undertake this analysis. In a mere three sentences, the district court found the permit shield inapplicable to karst-related leaks (defined post-trial as seeps of coal ash leachate from the Complex involving flow through a karst feature anywhere along the path to the River).[29] The district court reasoned that TDEC contemplated only "minor" dike seepage which already had been dismissed as non-actionable pursuant to the diligent prosecution bar, effectively conflating its earlier diligent prosecution ruling with its post-trial permit shield ruling. (RE258, PageID#10532.)

This finding was clear error. The district court ignored the undisputed evidence showing that, during the Permit reissuance process, TDEC affirmatively

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[29] It bears repeating that the factual predicate for the district court's rejection of the permit shield has no evidentiary basis because, as the district court found, Plaintiffs were "unable to identify specific sinkholes or other leaking karst features in the Ash Pond Complex in the present day." (RE258, PageID#10526.)

considered the possibility of leaks through karst features from the Complex to groundwater hydrologically connected to the Cumberland River but chose not to prohibit such "intended" discharges or to impose NPDES permit conditions. Such evidence includes:

- TDEC's internal email from September 2010 (JX137 (App.6)) referencing the 2009 Stantec report documenting leakage from the Complex through karst features in the 1970s (Stantec Report, RE164-17, PageID##6704, 6707, 6710, 6714, 6720);
- The June 2011 letter from Plaintiff TCWN and other environmental groups to TDEC commenting on the draft NPDES permit and pointing TDEC to a 2010 Stantec report. (JX150 (App.7) at 15 & n.62.) That report again documented a history of karst-related leaks from the Complex and attempted repairs thereto (Stantec Report, JX67 (App.8) at 8)), and acknowledged that it is not possible to design a facility to eliminate karst-related problems (*id.* at 29);
- The Permit's Addendum to Rationale containing TDEC's documented response to the environmental groups' comments about pollutant migration through groundwater and its decision that "***no NPDES permit conditions are established***" (Permit, RE1-2, PageID##105-06);

- Mr. Janjic's testimony that the Addendum to Rationale "is a part of [TDEC's] overall understanding and knowledge of what is happening at the facility" (Trial Tr.(Vol. 2), RE235, PageID#9027), and his agreement that it documented TDEC's decision not to impose NPDES permit conditions for groundwater migration at the Complex (*id.* PageID##9031-32);
- Mr. Janjic's confirmation of TDEC's permitting approach that known and contemplated seepage is not explicitly "authorized or identified in an NPDES permit" (*id.* PageID#9020); and
- The 2014 public record comments from Mr. Quarles objecting to TDEC's decision to issue a solid waste permit authorizing coal ash leachate from a new CCR landfill to be routed to the Complex given the history of leakage through karst features and the uncertainty as to whether sinkhole leakage had been completely eliminated. TDEC responded that "***the reason for plugging any of the sinkholes was to slow down the discharge rate of treated water to surface and subsurface water, not to stop the intended slow discharge.***" (Trial Tr.(Vol. 1), RE234, PageID8960).[30]

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30 *See supra* pp.12-13 and note 12.

All of this evidence, discounted by the district court, confirms that TDEC affirmatively contemplated groundwater flows from the Complex, including karst-related leaks. Rather than limiting or prohibiting these "intended slow discharges" through the establishment of NPDES permit conditions, the Addendum to Rationale documents TDEC's decision to assess and monitor the potential effects of any groundwater loadings on the Cumberland River through a biannual Reservoir Fish Assemblage Index. (Permit, RE1-2, PageID#106.)

The district court's analysis paid little heed to the permit record, wrongly focused on the lack of explicit Permit authorization, and in apparent reliance on the testimony of TDEC's Mr. Janjic and Plaintiffs' witness, Mr. Sulkin, disregarded the legal effect of the Addendum to Rationale. It is precisely the "explanation of the reasoning and process behind" (RE258, PageID#10453) TDEC's regulatory choices that reveals TDEC's permitting approach, what discharges TDEC reasonably contemplated, and thus, the scope of the permit shield.[31] *See ICG Hazard*, 781 F.3d at 285.

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[31] (See RE258, PageID#10453 ("Janjic repeatedly stressed that the addendum to rationale was distinct from the permit and was not itself an 'enforceable' legal document, but rather merely an explanation of the reasoning and process behind the actually enforceable terms of the permit."); *id.* PageID#10458 ("Sulkin's characterization of the relationship between an NPDES permit and its rationale mirrored Janjic's . . . .").) The district court erred in relying on these statements because they are inconsistent with the legal purpose of the Addendum to Rationale, *see* 40 C.F.R. § 124.8(a); Tenn. Comp. R. & Regs. 0400-40-05-.02(72), and they

Accordingly, the permit shield applies because TDEC "was aware of the ***potential*** for [the contested] discharges," *id.* at 283, the "permit included a provision recognizing that ***possibility***," *id.*, and TDEC "declined to otherwise impose additional" permit limits or conditions, *id.* at 290. In *ICG Hazard*, the regulator relied on a one-time monitoring provision "to determine whether selenium levels in surrounding bodies of water were within acceptable levels." *Id.* at 283. In the Gallatin Permit, TDEC relied on an analogous monitoring requirement: the biannual Reservoir Fish Assemblage Index.

In sum, TDEC's permitting approach for the Complex—not explicitly authorizing the potential for known and reasonably contemplated karst-related leakage—is precisely the situation governed by the permit shield. *See ICG Hazard*, 781 F.3d at 285; *accord Williams Pipe Line Co. v. Bayer Corp.*, 964 F. Supp. 1300, 1326 (S.D. Iowa 1997) (applying the CWA's permit shield because, "[u]nder the facts of this case, where Williams already has a permit covering discharges from the swamp, the Court holds Congress did not intend for seepages from the swamp to require a separate permit").

(. . . continued)
simply miss the mark: "compliance is a broader concept than merely obeying the express restrictions set forth on the face of the NPDES permit." *Piney Run Pres. Ass'n v. Cnty. Comm'rs of Carroll Cnty.*, 268 F.3d 255, 269 (4th Cir. 2001).

C. TVA Complied with the Permit's Removed Substances and Sanitary Sewer Overflow Provisions.

For three reasons, the district court erred in holding that TVA violated the Permit's Removed Substances provision (Part 1.A.(c)) and its Sanitary Sewer Overflow provision (Part II.C.(3.b). (RE258, PageID##10532-34.)

First, these holdings necessarily turn on the district court's erroneous conclusion that TDEC did not reasonably contemplate leaks through karst features. (*Id.*) But that conclusion, as demonstrated above, cannot stand. And the Permit's administrative record proves as much. Logically, ***if*** TDEC had interpreted specific Permit provisions to prohibit migration of pollutants through groundwater, there would have been no need for TDEC to explain publicly in the Addendum to Rationale why no permit conditions were established. (Permit, RE1-2, PageID##105-06.) Instead, TDEC could have stated that all leaks or discharges to groundwater would be prohibited by Permit provisions Part I.A(c) or Part II.C(3.b) or both.

Second, TDEC has conducted two NPDES Compliance Evaluation Inspections during the permit term and has found TVA in compliance each time. (NPDES Inspection Record (2014), JX 248 (App.9); NPDES Inspection Report, JX249 (App.10); Compliance Evaluation Inspection Letter, JX250 (App.11) at 3.)

Third, permits are interpreted like contracts. *Nw. Envtl. Advocates v. City of Portland*, 56 F.3d 979, 982 (9th Cir. 1995). And the plain language of these two

provisions shows that they do not apply to karst-related leaks from the Complex. By its terms, Part I.A(c) is an "[a]dditional monitoring requirement[] and condition[] applicable to ***Outfalls 001, 002 and 004***." (Permit, RE1-2, PageID#68.) By definition, karst-related leaks are not discharges from "Outfalls 001, 002, and 004." Therefore, this provision is inapplicable on its face. Also, Permit Part I.A(c) provides that "[s]ludge or any other material removed by any treatment works must be disposed of in a manner, which prevents its entrance into or pollution of any surface or subsurface waters." (*Id.*) But liquid discharges that pass through karst-related leaks are not "material removed by any treatment works." (*Id.*)

Permit Part II.C(3.b), which prohibits Sanitary Sewer Overflows, also cannot be reasonably read to cover karst-related leaks. This provision prohibits "the discharge to land or water of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls." (Permit, RE1-2, PageID#79.) A Sanitary Sewer Overflow normally is interpreted as involving "[a]n untreated or partially treated ***sewage*** release from a sanitary sewer system." (EPA Report, JX 252 (App.12) at GL-4, ES-2, 1-2 to 1-3).) And the EPA Permit Writer's Manual states that "occasional, unintentional spills of ***raw sewage*** from municipal sanitary sewers occur in almost every system. Such types of releases are called sanitary sewer overflows (SSOs))." (NPDES Permit Writer's Manual, JX 251 (App.13) at 2-8).)

TDEC's Mr. Janjic testified that the Permit's definition of Sanitary Sewer Overflow is intended to mirror the language in the EPA Permit Writer's Manual. (Trial Tr.(Vol. 2), RE235, PageID##9035-37.) The district court ignored both the plain meaning of sewage and this testimony, erroneously interpreting this sewage overflow provision to bar the contemplated karst-related leaks from the Complex. (RE258, PageID#10534.)

III. THE DISTRICT COURT ABUSED ITS DISCRETION IN ORDERING COMPLETE EXCAVATION OF THE ASH POND COMPLEX AND THE NON-REGISTERED SITE.

The district court's injunction ordering complete excavation and removal of 13.8 million cubic yards of coal ash from Gallatin cannot stand. Plaintiffs proved no harm to the Cumberland River; therefore, the district court ***presumed*** irreparable injury based on its finding of a bare statutory violation. This is a per se abuse of discretion. Further, the district court failed to properly balance the equities: given the costs involved and the likelihood that excavation and removal will pose greater risk of harm to the environment and to the public than closure in place, the extreme remedy ordered by the district court should be vacated.

A. The District Court's Presumption of Irreparable Injury Constituted a Per Se Abuse of Discretion.

To justify injunctive relief, a district court must find: (1) an irreparable injury; (2) that remedies available at law are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and

defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by an injunction. *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391 (2006). These traditional equitable standards apply with equal force in a CWA citizen suit. *See Weinberger v. Romero-Barcelo*, 456 U.S. 305, 320 (1982); *Amoco Prod. Co. v. Vill. of Gambell*, 480 U.S. 531, 542 (1987); *Natural Res. Def. Council, Inc., v. Texaco Refining & Mktg., Inc.*, 906 F.2d 934, 939 (3d Cir. 1990) (noting that "*Romero-Barcelo* and *Amoco* [have been interpreted] *to require* a district court to apply the traditional equitable standard before granting an injunction in [CWA] cases") (italics in original).

The Supreme Court has clarified that the "irreparable injury" factor is not satisfied by "the bare fact of a statutory violation" in a CWA case. *Romero-Barcelo*, 456 U.S. at 314; *accord Texaco*, 906 F.2d at 941 (district court appeared to "erroneously presume[] irreparable harm from the mere fact of statutory violation"); *Town of Huntington v. Marsh*, 884 F.2d 648, 653 (2d Cir. 1989) ("[I]rreparable injury must be proved, not assumed, and may not be postulated *eo ipso* on the basis of procedural violations of NEPA.").

The district court's irreparable harm finding conflicts directly with the Court's admonition. The district court presumed irreparable harm even though Plaintiffs failed to show any harm to the Cumberland River. (*See* RE258, PageID#10537 ("The strict liability regime adopted by Congress makes clear that

unauthorized contamination itself is a harm warranting remediation.").)

Because it applied the wrong legal standard at the crucial first step in the analysis, the injunction must be vacated because the district court "by definition" abused its discretion. *Koon*, 518 U.S. at 100; *see also eBay Inc.*, 547 U.S. at 394 (finding that misapplication of the traditional analytical framework constituted an abuse of discretion); *First Tech. Safety Sys., Inc. v. Depinet*, 11 F.3d 641, 647 (6th Cir. 1993) (same).

Moreover, no trial evidence established an irreparable injury to the Cumberland River or to Plaintiffs. The State of Tennessee's 303(d) lists for 2014 and 2016 do not list the Cumberland River as impaired, meaning that it meets all applicable state water quality standards. (JX260 (App.14) at 1-3, 22-24; JX261 (App.15) at 1-3, 25-27.) This is corroborated by water quality information compiled by the Corps of Engineers (JX 262 (App.16), 19-24; JX 263 (App.17), 6-10), and a wealth of data published by local utilities regarding drinking water sourced from the Cumberland River/Old Hickory Lake downstream from Gallatin (Municipal Water Quality Reports, JX 255-59 (Apps.18-22)).

The district court itself acknowledged that "the evidence is ***scant*** of concrete harm beyond mere risk and the presence of pollutants in and of itself" (RE258, PageID#10535); that "[t]he record is . . . ***largely bereft*** of evidence that would lead the Court to conclude that TVA's violations are particularly severe, in terms of the

harm done or the amount of pollutants released" (*id.*); and that "[t]he contamination from the Gallatin Plant has, at least in recent years, apparently been mild" (*id.* PageID#10538).

Recognizing "the inconclusive nature of the sampling" evidence proffered at trial, the district court resuscitated Plaintiffs' case with its own suppositions, concluding that even though Plaintiffs demonstrated no actual harm to the Cumberland River, "the evidence of the pond's leak-prone construction and history carries the day." (*Id.* PageID#10530.) And the district court imposed an injunction based on this speculative evidence, even though TDEC possessed the same evidence when it reissued the Permit over the protest of Plaintiff TCWN and other environmental groups, *see supra* Part II; and even though—for the small amounts of contamination that were observed in the "inconclusive" sampling—it proved impossible to disentangle the effects of known past leaks (that had already been repaired) from any present leakage (*see* RE258, PageID#10529-30).

In short, the record below contains no evidence of current harm sufficient to warrant complete excavation of the Complex/NRS; instead, the district court imposed this remedy based on hydrogeological generalities and hypothetical musings about what problems ***might*** arise in the future (but have never been demonstrated despite 60 years of continuous operation).

Equity requires quantifiable evidence of irreparable harm to the Cumberland River—the navigable water supplying CWA jurisdiction here—before ordering such a harsh and costly remedy. And there is no record evidence suggesting that the seepage or leakage of coal ash leachate comes anywhere close to the expressly-permitted 27 million gallons of treated wastewater discharges from Outfall 001, which TDEC has already determined would not cause environmental harm or pose a risk to human health or safety.[32] (RE1-2, PageID#106.)

An injunction should not be imposed "to restrain an act the injurious consequences of which are merely trifling." *Romero-Barcelo*, 456 U.S. at 311 (internal quotation marks omitted); *see also Hughey v. JMS Dev. Corp.*, 78 F.3d 1523, 1530 (11th Cir. 1996) (declining to abate unpermitted discharges when discharges "were minimal and posed no risk to human health"). Because Plaintiffs failed to prove the required irreparable harm component, the district court abused its discretion in ordering injunctive relief, an error all the more egregious given the court's extreme "excavate and relocate" remedy.

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[32] The district court disregarded TDEC's determination that the permitted effluent discharges from the ash pond "***do not cause or contribute to aquatic toxicity***" (Permit, RE1-2, PageID#102), and that "actual effluent concentrations are substantially lower than the projected concentration which would cause aquatic toxicity." (*Id.*) (underlining in original)).

B. The District Court Abused Its Discretion in Failing to Balance the Hardships and to Weigh the Multifaceted Public Interests at Stake.

"An injunction is a matter of equitable discretion; it does not follow from success on the merits as a matter of course." *Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7, 32 (2008). Beyond assuming irreparable injury, the district court likewise abused its discretion by ordering complete excavation to remedy unquantified seepage of CCR leachate without balancing the public's interest in reasonable electricity rates; the likelihood of environmental harm from the excavation itself; or how excavation will interfere with TVA's independent legal obligations under the CCR Rule.

Injunctive relief "should be no more burdensome to the defendant than necessary to provide complete relief to the plaintiffs." *Sharpe v. Cureton*, 319 F.3d 259, 273 (6th Cir. 2003); *accord Kentuckians for Commonwealth v. Rivenburgh*, 317 F.3d 425, 436 (4th Cir. 2003) (vacating injunction because it was "broader in scope than that necessary to provide complete relief to the plaintiff" and did "not carefully address only the circumstances of the case") (internal quotation marks omitted). Here, as demonstrated by the evidence at trial, the burden imposed by the district court's harsh remedy far outweighs any benefit and is not narrowly tailored to the circumstances of this case.

"The congressional policy regarding the sale of electricity by the TVA . . . is to 'permit domestic and rural use at the lowest possible rates.'" *Matthews v. Town of Greeneville*, 932 F.2d 968, 1991 WL 71414, at *1 (6th Cir. 1991) (alteration omitted) (quoting 16 U.S.C. § 831j). Tennessee Valley residents who purchase the electricity generated by TVA at facilities such as Gallatin thus have a statutorily-protected interest in reasonable electricity rates.

The district court abused its discretion by engaging in no balancing whatsoever between this competing interest and the public's interest in remedying unspecified and unproven amounts of pollution in the Cumberland River. The district court's "balancing" consists of a single sentence proclaiming that the remedy of complete excavation "would . . . plainly be in the public interest, and it is only appropriate that TVA . . . shoulder the cost." (RE258, PageID#10537.)

Yet the evidence at trial established that excavation and removal offsite could cost as much as $2 billion and that the full cost would be borne by TVA's ratepayers.[33] (Trial Tr.(Vol. 4), RE237, PageID#9521.) The district court's omission of the ratepayers' burden shows that it failed to "give serious

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[33] In contrast, closure-in-place at Gallatin is estimated to cost approximately $200 million. (Trial Tr.(Vol. 4), RE237, PageID##9520-21.) Another alternative not discussed at trial (and that would have to be approved, permitted, and constructed) is removal and relocation to a new onsite landfill, which TVA estimates would still cost three times as much as closure-in-place. (Proposed Compliance Timetable, RE268, PageID#10883.)

consideration to the public interest factor." *Winter*, 555 U.S. at 26-27 (internal quotation marks omitted) (finding that the district court abused its discretion by addressing competing interests in one sentence and "in only a cursory fashion").

Another glaring deficiency in the district court's analysis was its failure to consider, or even mention, the CCR Rule, which establishes "nationally applicable minimum criteria for the safe disposal of [CCR] in landfills and surface impoundments," 80 Fed. Reg. 21,302, 21,303. The CCR Rule provides two alternative closure methods—closure-by-removal or closure-in-place,[34] *see* 40 C.F.R. § 257.102—and "the final rule allows the owner or operator to determine . . . [which closure method] is appropriate for their particular unit." 80 Fed. Reg. 21,302, 21,412. EPA has acknowledged that "most facilities will likely not [close by removal] given the expense and difficulty" and that both methods "can be equally protective, provided they are conducted properly." *Id.*

As required by law,[35] a qualified professional engineer has certified that TVA's published plan to perform closure-in-place at Gallatin meets the requirements of the CCR Rule. (Closure Plan, JX190 (App.25) at 2.) This same

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34 Closure-in-place involves dewatering an impoundment and capping it with a geosynthetic liner, borrow material, soil, and vegetation to prevent water from flowing into and through it. (*See, e.g.*, Trial Tr.(Vol. 4), RE237, PageID#9515.)

35 *See* 40 C.F.R. § 257.102(b)(4), (d)(3)(iii).

professional engineer, Gabe Lang, offered unrebutted testimony that closure-in-place will meet the CCR Rule's closure performance standards, 40 C.F.R. § 257.102(d), and is sufficient to address the groundwater flows at issue here. (RE229-1, PageID#8565-79.) *See also* 80 Fed. Reg. 21,302, 21,342 ("Dewatered CCR surface impoundments will no longer be subjected to hydraulic head so the risk of releases, including the risk that the unit will leach into the groundwater, would be no greater than those from CCR landfills.").

Mr. Lang also concluded that closure-by-removal is not feasible because, due to the sheer size of the Complex, closure-by removal would present significant environmental and engineering challenges and would preclude completion of closure within the timeframe allowed by the CCR Rule.[36] (Lang Direct Test., RE229-1, PageID##8579-80.) Mr. Lang testified that he was "unaware of any completed ash relocation projects of this magnitude." (*Id.*) Mr. Lang also testified that excavation would greatly increase the risk of sinkhole formation and the possibility that more CCR leachate could reach groundwater. (RE258, PageID##10480-83.) Plaintiffs failed to rebut Mr. Lang's testimony. In fact, Plaintiffs offered no affirmative evidence showing that closure-in-place would not

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[36] For CCR surface impoundments over 40 acres (such as the Complex), closure must be completed within 15 years of commencing closure activities (an initial five-year period with the possibility for a maximum of five two-year extensions). 40 C.F.R. § 257.102(f)(1)(ii), (2)(i)-(ii).

meet the requirements of CCR Rule or, conversely, that closure-by-removal would meet the requirements of the CCR Rule "consistent with recognized and generally accepted good engineering practices." 40 C.F.R. § 257.102(b)(1).[37]

The district court's failure to properly credit TVA's expert testimony and related evidence, which was based upon knowledge acquired through years of experience at the Gallatin site, constituted an abuse of discretion. *Cf. Winter*, 555 U.S. at 28 (concluding that the lower courts did not give sufficient weight to governmental officials' testimony regarding the effect of preliminary injunction on naval training).

The district court similarly erred because it failed to weigh the competing environmental and safety concerns that inevitably accompany a project of this magnitude.[38] TVA's Environmental Impact Statement studying CCR Rule closure alternatives for its ash ponds determined that, as compared to closure-by-removal, closure-in-place "would have fewer overall adverse environmental impacts." (Record of Decision, JX268 (App.23) at 8.) The reasons supporting this determination included the extraordinary volume of truck activity that would be required to effectuate closure-by-removal to an offsite landfill (*see* TVA EIS,

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[37] Nor were Plaintiffs' trial witnesses qualified to present this type of testimony. (*See* Trial Tr.(Vol.1), RE234, PageID##8827-29, 8949-50.)

[38] The project area for excavation and removal is massive (approximately 541 acres). (*See generally* Unmanned Aerial System Video, DX61 (App.3).)

JX266 (App.24) at 46; Trial Tr.(Vol. 3), RE236, PageID#9330), deleterious impacts on the environment (*see* TVA EIS, JX266 (App.24) at 46, 107-08, 110-16, 119, 128-29, 133-36), and adverse impacts on worker-related and transportation-related health and safety (*see id.* at 113-16, 135). The decision below weighed none of these considerations.

The district court's order of closure-by-removal through an injunction imposed under the CWA countermands EPA's regulatory conclusion that closure-in-place is an acceptable option. The injunction also sets in motion a decades-long process fraught with engineering and environmental challenges that will cause TVA to run afoul of EPA's mandate that closure be completed "consistent with recognized and generally accepted good engineering practices," 40 C.F.R. § 257.102(b)(1), and within the maximum allowable timeframe (i.e., 15 years including extensions), *id.* § 257.102(f)(1)(ii), (2)(i)-(ii). As TVA informed the district court in its Proposed Timetable for Compliance with the injunction, it is estimated to take "24 years for completion of excavation and disposal [which] does not achieve closure within the timeframe required" by the CCR Rule. (RE268, PageID#10883.)

In a related misstep, although recognizing that "TVA appears to have been at least working towards resolving some or all of its ash pond problems, often with direct involvement of TDEC itself" (RE258, PageID#10536), the district court did

not consider how its injunction might interfere with the ongoing remediation process in the parallel state enforcement action. *Cf. Ellis v. Gallatin Steel Co.*, 390 F.3d 461, 476-77 (6th Cir. 2004) (reversing award of injunctive relief in a Clean Air Act citizen suit when ongoing activities under an EPA consent decree addressed same harm and plaintiffs sought to obtain relief "on more stringent terms" (internal quotation marks omitted)).

In sum, the district court's cursory analysis is wholly insufficient to support the draconian injunction ordered. If this Court declines to reverse on the merits, at a minimum, it should vacate the injunction and remand to the district court with instructions to fashion a remedy tailored to the facts and circumstances of this case, including TVA's obligations under the CCR Rule and the ongoing state enforcement action.

CONCLUSION

For the foregoing reasons, the judgment of the district court should be reversed, and judgment should be entered in favor of TVA. Alternatively, the district court's injunction should be vacated and the case remanded for the district court to reconsider whether an injunction should issue.

Respectfully submitted,

s/David D. Ayliffe

David D. Ayliffe
Associate General Counsel
James S. Chase, Senior Attorney
F. Regina Koho, Attorney
Lane E. McCarty, Attorney
Office of the General Counsel
400 West Summit Hill Drive
Knoxville, Tennessee 37902-1401
Telephone 865.632.8964
ddayliffe@tva.gov

Attorneys for Defendant-Appellant
Tennessee Valley Authority

CERTIFICATE OF COMPLIANCE

I certify that the foregoing brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because it contains 12,876 words excluding the parts of the brief exempted by Fed. R. App. P. 32(f), and complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared using Word 2010 in Times New Roman (14 point) proportional type.

s/David D. Ayliffe
David D. Ayliffe
Attorney for Defendant-Appellant
Tennessee Valley Authority

CERTIFICATE OF SERVICE

I certify that on January 30, 2018, the foregoing document was electronically filed and served by operation of the Court's CM/ECF system on the following attorneys of record for Plaintiffs-Appellees in this matter:

Elizabeth A. Alexander, Esq.
Anne E. Passino, Esq.
Southern Environmental Law Center
2 Victory Avenue, Suite 500
Nashville, Tennessee 37213
Telephone 615.921.9470
adavis@selctn.org

Frank S. Holleman III, Esq.
Southern Environmental Law Center
601 West Rosemary Street, Suite 220
Chapel Hill, North Carolina 27516
Telephone 919.967.1450
fholleman@selcnc.org

Jonathan Gendzier, Esq.
Southern Environmental Law Center
103 East Water Street, Suite 201
Charlottesville, Virginia 22902
Telephone 434.977.4090
jgendzier@selcva.org

Shelby Renee Burks Ward, Esq.
Tennessee Clean Water Network
625 Market Street, 8th Floor
Knoxville, Tennessee 37902
Telephone 865.522.7007
shelby@tcwn.org

Michael S. Kelley, Esq.
Kennerly Montgomery Finely, P.C.
550 Main Street, 4th Floor
Knoxville, Tennessee 37902
Telephone 865.546.7311
mkelley@kmfpc.com

59132176

s/David D. Ayliffe
Attorney for Defendant-Appellant
Tennessee Valley Authority

ADDENDUM

APPELLANT'S DESIGNATION OF RELEVANT DISTRICT COURT DOCUMENTS

Record Entry	Date	Document Description	Page ID # Range
RE1	Apr. 14, 2015	Complaint	1-54
RE1-2	Jun. 26, 2012	NPDES Permit No. TN0005428	57-157
RE12	Jun. 15, 2015	TVA's Motion to Dismiss for Failure to State a Claim	252-253
RE13	Jun. 15, 2015	TVA's Brief in Support of Motion to Dismiss	254-278
RE13-1	Aug. 3, 2012	Amended Petition for Statutory Appeal (Tenn. Bd. of Water Quality)	279-306
RE24	Jul. 28, 2015	Reply to Response to Motion re: Motion to Dismiss for Failure to State a Claim by Tennessee Valley Authority	749-767
RE51	Mar. 3, 2016	TVA's Motion for Judgment on the Pleadings as to All Plaintiffs' Claims Regarding Seeps	1607-1609
RE52	Mar. 3, 2016	Memorandum in Support of TVA's Motion for Judgment on the Pleadings as to All Plaintiffs' Claims Regarding Seeps	1610-1631
RE52-1	Dec. 19, 2013	Petitioners' Notice of Voluntary Dismissal of Certain Claims (Tenn. Bd. of Water Quality)	1632-1635
RE52-2	Sep. 11, 1997	*Amigos Bravos v. Molycorp, Inc.*, No. CIV 95-1497 JP/DJS, Mem. Op. & Order (D.N.M. Sep. 11, 1997)	1636-1641
RE58-15	Apr. 30, 1976	EPA-issued NPDES permit for TVA Gallatin Fossil Plant (Permit No. TN0005428)	1855-1882

Record Entry	Date	Document Description	Page ID # Range
RE65	Apr. 5, 2016	Reply to Response to TVA's Motion for Judgment on the Pleadings as to All Plaintiffs' Claims Regarding Seeps	2110-2120
RE102	Jun. 24, 2016	TVA's Motion for Judgment on the Pleadings as to Plaintiffs' Claim E	3736-3738
RE103	Jun. 24, 2016	Memorandum in Support of TVA's Motion for Judgment on the Pleadings as to Plaintiffs' Claim E	3739-3791
RE127	Aug. 4, 2016	Reply to Response to TVA's Motion for Judgment on the Pleadings as to Plaintiffs' Claim E	4872-4897
RE139	Sep. 9, 2016	Memorandum Opinion, *Tenn. Clean Water Network v. TVA*, 206 F. Supp. 3d 1280 (M.D. Tenn. 2016).	5327-5368
RE140	Sep. 9, 2016	Order re: Sept. 9, 2016 Memorandum Opinion	5369-5370
RE148	Nov. 18, 2016	Proposed Findings of Fact and Conclusions of Law (Pretrial) by Tennessee Valley Authority	5391-5478
RE164-17	June 2009	Stantec, TVA Disposal Facility Assessment, Phase 1 Plant Summary, Gallatin Fossil Plant	6699-6752
RE215	Jan. 23, 2017	Pretrial Order	8047-8060
RE226	Jan. 27, 2017	Joint Stipulation of Facts	8324-8329
RE229-1	Jan. 31, 2017	Direct Testimony Statement of Gabriel Lang	8554-8584
RE229-2	Jan. 31, 2017	Direct Testimony Statement of Walter Kutschke	8585-8600
RE230-1	Feb. 1, 2017	Direct Testimony Statement of Elizabeth Perry	8677-8698
RE230-2	Feb. 1, 2017	Direct Testimony Statement of John Kammeyer	8699-8714
RE234	Jan. 30, 2017	Trial Transcript, Vol. 1	8742-8972

Record Entry	Date	Document Description	Page ID # Range
RE235	Jan. 31, 2017	Trial Transcript, Vol. 2	8973-9196
RE236	Feb. 1, 2017	Trial Transcript, Vol. 3	9197-9407
RE237	Feb. 2, 2017	Trial Transcript, Vol. 4	9408-9576
RE238	Feb. 27, 2017	Revised Exhibit and Witness List	9577-9591
RE242	Apr. 14, 2017	Proposed Findings of Fact and Conclusions of Law (Post-Trial) by Tennessee Valley Authority	9627-9772
RE243	Apr. 14, 2017	Trial Brief (Post-Trial) by Tennessee Valley Authority	9861-9888
RE258	Aug. 4, 2017	Findings of Fact and Conclusions of Law, *Tenn. Clean Water Network v. TVA*, ___ F. Supp. 3d ___, 2017 WL 3476069 (M.D. Tenn. Aug. 4, 2017).	10420-10542
RE259	Aug. 4, 2017	Order re: District Court's Aug. 4, 2017 Findings of Fact and Conclusions of Law	10543-10544
RE260	Aug. 4, 2017	Entry of Judgment	10545
RE268	Sep. 5, 2017	Notice of Filing of Proposed Timetable for Compliance with the Court's August 4, 2017 Order	10876-10885
RE281	Oct. 2, 2017	Notice of Appeal by Tennessee Valley Authority	11016-11019

RE238		Trial Exhibits	Documents listed on the Appendix have been submitted to the Court on disc.[39]

[39] *See supra* p.5 note 5.

FRAP 28(f) ADDENDUM DOCUMENTS

No.	Document Description
1.	*Water Pollution Control Legislation – 1971 (Proposed Amendments to Existing Legislation): Hearings before H. Comm. on Pub. Works*, 92nd Cong. 230 (July 20, 1971) (statement of Hon. William Ruckelshaus, Administrator, Environmental Protection Agency)
2.	118 Congressional Record 10,666, 10669 (March 28, 1972)

WATER POLLUTION CONTROL LEGISLATION—1971

(Proposed Amendments to Existing Legislation)

(92-16)

HEARINGS

BEFORE THE

COMMITTEE ON PUBLIC WORKS

HOUSE OF REPRESENTATIVES

NINETY-SECOND CONGRESS

FIRST SESSION

JULY 13, 14, 15, 20, 22, 27, 28, 29; AUGUST 2, 3, 4, 5; SEPTEMBER 13, 14, 15, 16, 20, 21, 22, 23, 24; AND NOVEMBER 9, 1971

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* Retained in committee file.

*Retained in committee files.

WATER POLLUTION CONTROL LEGISLATION—1971

(Proposed Amendments to Existing Legislation)

TUESDAY, JULY 20, 1971

HOUSE OF REPRESENTATIVES,
COMMITTEE ON PUBLIC WORKS,
Washington, D.C.

The committee met at 1:10 p.m., in room 2167, Rayburn House Office Building, Hon. Ray Roberts, presiding.

Mr. ROBERTS. The committee will be in order.

This afternoon we are starting the second week of our legislative hearings on water pollution control. We are seeking out the most expert opinions on specific legislative proposals to implement the needs of the program.

Last week, we heard from William D. Ruckelshaus, Administrator of the Environmental Protection Agency, and Paul A. Volcker, Under Secretary of the Treasury, on a number of subjects, including the problems of waste treatment facility construction, State programing grants, a proposed environmental financing authority, ocean dumping, and land use.

This afternoon, Mr. Ruckelshaus will answer questions based on his testimony on ocean dumping and land use.

Thereafter, we will hear from a delegation from New York who wish to discuss a serious water pollution control problem in Suffolk County, N.Y.

Mr. Ruckelshaus, we know you have spent an awful lot of time before this committee, and others. We appreciate having you back.

Mr. RUCKELSHAUS. Thank you, Mr. Chairman. I am delighted to be here.

Mr. ROBERTS. Counsel.

Mr. EDELMAN. We have some questions we would like to ask you, sir, with regard to ocean dumping.

At the present time, under the existing law, if someone proposes to dump any type of material in the Great Lakes or the estuaries, is he required to obtain a Federal permit first?

Mr. RUCKELSHAUS. The answer to that is not entirely clear, but generally no, and I could get—there is a permit procedure which the Corps of Engineers has instituted under the 1887 act in which there are some controls over ocean dumping, but we do not have any general permit procedure.

Mr. EDELMAN. Excuse me, Mr. Ruckelshaus. I was referring only to the Great Lakes or the estuaries. We were not discussing the oceans yet. The question was: At the present time, under existing law, if someone proposes to dump any type of material in either the Great

Lakes or in the estuaries, is he required to obtain a Federal permit?

Mr. RUCKELSHAUS. My answer remains the same. I think the answer is "No." If there is an outfall into there, he is in violation of the Refuse Act. He may be subject to water quality standards, and if he dumps, in fact, he may be in violation of the Refuse Act.

Mr. EDELMAN. Well, we have a series of questions on ocean dumping, Mr. Ruckelshaus. I would just defer to the chairman, and I would suggest that rather than asking them here, it might be better if we give them to you for answering, because I think they all hinge around the answer to that first question.

Mr. ROBERTS. Without objection, the questions will be sent to Mr. Ruckelshaus. The replies, when received, will be made a part of the record at this point.

(The information follows:)

QUESTIONS POSED BY THE PUBLIC WORKS COMMITTEE, AND REPLIES RECEIVED FROM THE ENVIRONMENTAL PROTECTION AGENCY ON OCEAN DUMPING

Question 1. At the present time, under the existing law—if someone proposes to dump any type of material in the Great Lakes or the Estuaries—is he required to obtain a Federal permit first? If so, from whom?

Answer. 33 U.S.C. 407 provides that it is unlawful to deposit any refuse matter into the navigable waters of the United States (which would include the Great Lakes and the Estuaries) without a permit issued by the Secretary of the Army. 33 U.S.C. 443 requires the owner or master of any scow or boat which takes on board any refuse matter in the harbor of New York, Baltimore or Hampton Roads, to obtain a permit from the supervisor of the harbor (an officer of the Corps of Engineers) prior to transporting such refuse matter to the place of deposit. 33 U.S.C. 419 authorizes the Secretary of the Army to prescribe regulations to govern the transportation and dumping of any refuse materials into any navigable waters, whenever in his judgment such regulations are required in the interest of navigation; however, 33 U.S.C. 419 does not require a permit for such transportation or dumping.

Question 2. Prior to granting this permit in the Great Lakes and the Estuaries, isn't the Corps of Engineers required to ascertain that the applicant has an appropriate certification from the State or States in whose waters it is proposed to dump the material that it will not violate applicable water quality standards?

Answer. Yes, under section 21(b) of the Federal Water Pollution Control Act, provided that water quality standards have been established for the waters in question.

Question 3. Can anyone dump any type of material within the territorial waters (3-mile limit) of the U.S. without obtaining a Federal permit from the Corps of Engineers? Doesn't the same requirement for a State certification apply within the 3-mile limit? If not—why not?

Answer. The provisions of 33 U.S.C. 407 and 33 U.S.C. 419, referred to in the answer to Question #1, apply to discharges within the three-mile limit, and the requirement of a State certification also applies to such discharges.

Question 4. Is there any similar requirement to obtain a Federal permit for dumping in the ocean beyond the 3-mile limit?

Answer. The provisions of 33 U.S.C. 443, referred to in the answer to Question No. 1, apply to dumping wherever carried out, provided that the refuse material which is dumped is transported by scow or boat from one of the three harbors to which the statute applies.

Question 5. Isn't it accurate to state that the only area not presently regulated is beyond the 3-mile limit? (Recognizing that the Supervisory Acts have limited application beyond the 3-mile limit)

Answer. No, since, although 33 U.S.C. 407 contains authority to regulate intermittent dumping from vessels within the three-mile limit, the Secretary of the Army by and large has not implemented that statute as it appears to such dumping.

Quesion 6. Does EPA review the applications for permits?

Answer. A Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army dated July 13, 1967 calls for review by

Interior of permit applications for dredging, filling, excavation or other related work in navigable waters of the United States. The Memorandum of Understanding calls upon Regional Directors of the Interior Department to advise District Engineers whether the work proposed by the permit applicant, including the deposit of any material in or near any navigable waters, will violate applicable water quality standards. In view of the transfer in 1970 of the Secretary of the Interior's water pollution control functions to the Administrator of EPA, the foregoing provisions of the Memorandum of Understanding are no longer applicable, and no memorandum has been concluded between the Administrator of EPA and the Secretary of the Army to take its place. However, EPA is presently reviewing permit applications as though the terms of the 1967 Memorandum of Understanding were applicable.

Question 7. Has the Corps of Engineers granted any permits for dumping where EPA has objected to the issuance of such permits? If the answer is yes, pleased describe each such occurrence.

Answer. EPA and its predecessor agency, the Federal Water Quality Administration, have had disagreements with the Corps of Engineers over whether particular permits within the ambit of the 1967 Memorandum of Understanding should be granted, and over the terms of such permits. However, it is believed that there have been few instances, if any, in which a permit has actually been issued over EPA/FWQA objection. By and large, these disagreements have been resolved on the regional level in accordance with the terms of the Memorandum of Understanding, and it would be necessary to consult regional files to document instances in which a permit has been issued over EPA/FWQA objection.

Question 8. Under the proposed administration legislation on ocean dumping, what agency would be responsible for the administration of the Refuse Act Permit program?

Answer. The Corps of Engineers would have primary administrative responsibility.

Question 9. If the Corps is to be responsible for the Refuse Act program handling discharges from fixed sources which is obviously a major source of pollution—what is the justification for EPA being given authority to grant permits from moving sources? Why should another Federal agency be layered into the structure? Or do you believe EPA should have the permit authority for discharges from all sources?

Answer. Ideally, EPA should have the permit authority for discharges from all sources. The Refuse Act Permit Program was conceived in 1970 as an administrative effort to achieve maximum utilization of pollution control legislation already on the books, and under that legislation, the permit issuing authority for discharges into navigable waters was lodged in the Corps of Engineers (33 U.S.C. 407). However, the enactment of new legislation to confer regulatory authority where none presently exists is an entirely different matter; accordingly, the Administration's bill to regulate ocean dumping confers the permit issuing authority upon EPA, the agency best equipped, by virtue of its environmental expertise, to administer such a program.

Question 10. What would be the obligations in merely amending the River and Harbor Act of 1899 to 1905 to extend the 3-mile limit and to require the Corps of Engineers to work with EPA? What expertise or experience does EPA have in administering a permit program? a policing program?

A. EPA believes that, if a comprehensive ocean dumping policy is to be implemented etxending beyond the three-mile limit, it should be administered by EPA, the Federal agency charged with primary responsibility for environmental protection. While it is true that EPA has had limited experience to date in administering a permit program, it is not believed that that is a very compelling argument in favor or conferring an expanded permit issuing authority upon the Corps of Engineers, since the Corps is not primarily an environmental agency and itself has had very limited experience in administering a permit program, at least insofar as dumping is concerned; until the recently announced Refuse Act Permit Program, the Refuse Act was largely unimplemented, and the Permit Program is still in its preliminary stages. So far as policing is concerned, the Administration has proposed that this be carried out by EPA in conjunction with the Coast Guard.

Mr. EDELMAN. The second series of questions concerns land use.

The other day, you stated that EPA could carry out the responsibility for water pollution control more effectively as effective controls were established under land use.

Do you believe, in fact, that in the long run you can effect any significant major improvement in the water quality situation without going to land use controls?

Mr. RUCKELSHAUS. Well, I don't know that I would go quite that far, but I think it is essential that we view the problem of water pollution and degradation of the environment in general as a totality, and clearly, there needs to be much more sophisticated intelligent application of the principles of proper land use if we are ever going to really come to grips with this problem as a whole.

Mr. EDELMAN. The administration's proposed legislation would authorize the Secretary of the Interior to make land planning grants for the development of State land use programs. If water quality improvements are one of the eventual paramount objectives of this land use policy program, can it be effectively implemented if its planning is separate from water resource planning?

Mr. RUCKELSHAUS. Well, I think that certainly water quality is a major goal of the program, and in making the grants for land use planning, I would assume that the Secretary would attempt to insure that water resource planning was integrated into the planning relating to the land-use grant.

I am stating that you have to plan in a total sense if you are going to do it effectively.

Mr. EDELMAN. Could you specify the nature of the land use controls that you feel the States would have to implement in order for a State land-use-control program to be satisfactory to EPA for water-quality protection?

Mr. RUCKELSHAUS. Well, I think, in general, there would have to be some assurance on the part of the States that they had taken into account all of the water-quality problems that might result from their land-use plan, and that they had taken into account ahead of time the need to protect those areas of critical environmental concern which are described in the act itself as estuarine areas, coastal zones, and flood plains. So in order for a plan to be acceptable to EPA we would have to have assurance in the overall State plan itself that they had given adequate consideration to these areas and that water quality standards and water quality in general would be protected.

Mr. EDELMAN. What research is currently being undertaken either by EPA or under its sponsorships in the area of the total nonpoint source and agriculture waste management question as it affects water quality?

Mr. RUCKELSHAUS. Mr. Jensen may be able to give a more complete answer to that.

Mr. JENSEN. We have quite a variety of research programs that are dealing with waste of one kind or another. Sediments and waste from the forest industries, and other programs dealing with the restoration of strip mines and the avoidance of sedimentation and acid runoffs from these strip mines. We could provide, of course, a complete listing of these projects, if you so wish.

Mr. ROBERTS. If you please, we would like to have it for the record.

(The information follows:)

Organization	Title	Project cost	Federal cost
Department of Natural Resources, State of West Virginia.	"Demonstration of the Technique of Water Infiltration Control to Achieve Mine Water Pollution Control."	$961,392.00	$672,000.00
Regional Science Research Institute	"Economic Evaluation of Stream Quality Preservation Through Land Use Management."	55,435.00	52,663.00
Northwestern University	"Use of Dredgings for Landfill."	79,174.00	74,808.00
Dr. Sammet, University of California	"Management of Water Quality Stratified Reservoirs."	11,665.00	11,037.00
Division of Sponsored Programs, Purdue Research Foundation.	"Erodibility of Urban and Suburban Construction Site Subsoils as Predicted by Chemical, Mineralogical and Physical Parameters."	79,155.00	75,198.00
University of Maryland School of law	"An Analysis of the Legal Problems in Reclamation of Mines in Appalachia."	44,523.00	42,247.00
West Virginia Board of Regents, West Virginia University.	"Mining Operations for the Reduction of Harmful Drainage from Underground Coal Mines."	87,543.40	83,166.23
Commonwealth of Pennsylvania, Department of Mines and Mineral Industries.	"Use of Gel Material for Sealing Deep Mine Openings."	205,000.00	143,500.00
Do	"Use of Latex as a Soil Sealant to Control Acid Mine Waste Drainage."	259,770.00	181,839.00
Island Creek Coal Co	"A Demonstration of a New Mining Technique to Prevent the Formation of Mine Acid in an Active Deep Mine."	831,770.00	582,239.00
Commonwealth of Pennsylvania, Department of Mines and Mineral Industries.	"Abatement of Acid Mine Drainage Pollution by Reverse Osmosis."	39,426.00	27,598.00
Do	"Feasibility of the Purification of Acid Mine Water by a Partial Freezing Process."	15,000.00	10,500.00
Carnegie-Mellon University	"Acid Mine Drainage—Pilot Plant Evaluation"	63,910.00	57,518.00
Tyco Laboratories, Inc	"Silicate Treatment of Acid Mine Wastes"	55,412.00	55,412.00
Catalytic Construction Co	"Treatment of Acid Mine Drainage"	327,629.00	327,629.00
President and Fellows of Harvard College.	"Microbial Mediation in Generation of Acid Mines Wastes".	27,018.00	25,667.00
Horizons, Inc	"Treatment of Acid Mine Drainage"	49,300.00	49,300.00
Halliburton Co	"Research, Development and Field Testing of Mine Water Pollution Abatement Methods."	328,830.00	328,830.00
Trustees of the University of Pennsylvania.	"Stream Quality Preservation Through Urban Land Use Management: Legal and Government."	54,126.00	37,390.00
University of Texas	"Mixing and Dispersion of Contaminants in Reservoirs."	28,536.00	25,942.00
National Association of Counties, Research Foundation.	"Community Action Guide for Erosion and Sedimentation Control."	56,543.00	41,343.00
State of Maryland	"Demonstration and Quantitative Evaluation of Storm Water Erosion and Sediment Control Practices in a Developing Urban Area."	432,000.00	280,000.00
University of Denver	"Abatement of Mine Drainage Pollution from Mines of the Rocky Mountains."	22,465.00	21,340.00
Commonwealth of Pennsylvania Department of Mines and Mineral Industries.	"Trough Creek Limestone Barrier Installation and Evaluation."	233,460.00	28,160.00
Ohio State University Research Foundation.	"Pesticide Movement From Cropland into Lake Erie."	25,205.00	23,431.00
Colorado State University	"Grand Valley Salinity Control Demonstration Project."	80,489.00	76,053.00
Oregon State University	"Studies on Effects of Watershed Practices on Streams."	50,575.00	37,552.00
Michigan State University	"Soil Modification for the Denitrification and Phosphate Reduction of Feedlot Wastes."	141,184.00	99,852.00
Desert Research Institute	"Effect of Water Management on Quality of Ground Water and Surface Recharge."	140,290.00	127,470.00
State of California	"Nutrient Removal From Agricultural Waste Waters."	176,600.00	53,000.00
Bureau of Reclamation, Department of the Interior.	"Prediction of Mineral Quality of Return Flow Water from Irrigated Land."	150,000.00	150,000.00
Bureau of Reclamation	"Monitoring Herbicide Residues in Irrigation Systems."	60,000.00	60,000.00
Colorado State University	"Grand Valley Salinity Control Demonstration Project."	80,489.00	76,053.00
Alabama Agricultural and Mech. College.	"Nutrient Inputs to Streams from Fertilizers"	62,667.00	59,532.00
South Dakota State University	"Quantification of Pollutants in Agricultural Runoff."	58,330.00	55,330.00
Cornell University	"Agricultural Contributions to Nutrients in Water."	160,883.00	147,768.00
National Oil Recovery Corp	"Demonstration of the Complete Conversion of Crankcase Waste Oil Into Useful Products—Without Producing Pollutant Material."	1,678,104.00	387,331.00
AVCO-Economic Systems	"Develop the Relation Between Land-Use Practices and Incidence of Pollution in Urban Storm Water."	119,281.00	119,281.00
Texas Technological College	"Distribution of Nitrogen in the Ground-Water Zone Below Feed-Lots, Texas High Plain."		39,364.00
Lake Tahoe Area Council	"Eutrophication of Surface Waters—Lake Tahoe."	60,400.00	57,375.00

IN-HOUSE RESEARCH ACTIVITIES (RELATING TO NONPOINT SOURCE POLLUTION CONTROL)

Program area	Laboratory	Title	Man-years
Forestry and logging	Corvallis, Oreg.	Log storage in waterways	0.2
		Forest fertilization practices	.1
	Athens, Ga.	Pesticide and fertilizer runoff	.1
Agricultural runoff	do	Control of pesticide runoff by improved management	6.0
Irrigation return flows	Ada, Okla.	Field research station for IRF quality control	2.5
Animal feedlots	do	Criteria for soil disposal of feedlot runoff	1.0
		Development of field research site	1.0
		Dissemination for technology transfer	2.0
Natural runoff	do	Biological treatment for sulfate waters	1.0

Mr. EDELMAN. Can you comment on the State of Delaware's action on June 28 in barring heavy industry from the Delaware coast? Is this the direction in which we will have to go in order to deal with the despoilation of coastline estuarine areas?

Mr. RUCKELSHAUS. I think it is somewhat dangerous to generalize, and again, what Delaware did is the kind of activity that the administration's land-use program, land-use bill, would encourage the States to do. Not necessarily that particular kind of application of the authority itself, but certainly Delaware, and this is the administration's theory of the bill itself, should be allowed to decide for itself whether they would prefer to protect a coastal zone in the interest of the citizens of that State, or to encourage industry to locate on that zone. And having made that decision, that certainly would be consonant with the provisions of the administration's Land-Use-Policy Act. But as far as that particular activity by Delaware itself is concerned, that is the kind of decision that this program would delegate to a State to make.

Mr. ROBERTS. Mr. Ruckelshaus, we would be pleased to take the statements that you plan to submit to the committee tomorrow, and that will take care of our problems, I hope, for a while.

Incidentally, I think we ought to tell you. Over in the Senate they are debating on more committees on environment, so we will have more places for you to testify.

Mr. RUCKELSHAUS. I am certainly looking forward to that, Mr. Chairman. [Laughter.]

Mr. Chairman, I have previously covered the proposals regarding financial assistance for construction of municipal waste treatment works, State program grants, and ocean dumping. Today, I will discuss our proposals for water quality standards and enforcement.

STATEMENT OF HON. WILLIAM D. RUCKELSHAUS, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY—Resumed

Mr. RUCKELSHAUS. The Federal Water Pollution Control Act, which has been structured largely by this committee over the years, has built increasingly upon the foundation of standards. Water quality standards provide the basis for State and local action, and a means of measuring the progress of such action. They identify the remedial measures that must be taken by industries and municipalities. They provide the basis for Federal enforcement action as well.

We believe those standards should be strengthened and broadened. They should apply to all navigable waters and their tributaries,

whether interstate or intrastate. They must be enforceable—and they can only be enforceable if they are clear and precise and as realistic as we can make them. They must be subject to development in keeping with advances in technology, and improvement in the reliability of the scientific data upon which they are based. As such they will provide the basis for continued enhancement. These are our goals in H.R. 5966.

We would extend water quality standards to all navigable waters and their tributaries, intrastate as well as interstate. Under present law, the Federal Government has authority to approve standards adopted by the States for interstate waters within their respective jurisdictions, and to promulgate Federal standards for such waters when the States fail to take appropriate action. No comparable authority exists for intrastate waters; the individual States are free to act or not to act as they see fit, and such standards as they establish are apt to vary widely in terms of their specificity and adequacy. Our legislative proposal would end the variations and gaps in coverage resulting from the present jurisdictional patchwork, and provide the basis for a comprehensive national system of water quality standards.

We would also extend water quality standards to ground waters. Such standards are particularly important in view of the likely tendency on the part of industries to resort to deep well disposal of highly toxic wastes as a means of escaping the requirements of increasingly stringent standards for surface waters.

We would provide for EPA establishment of water quality standards for the 9-mile contiguous zone, and for the high seas with respect to wastes originating within U.S. territory. These standards would be of assistance in implementing the ocean dumping proposal which I discussed yesterday.

Since the passage of the Water Quality Act of 1965, the States have taken many different approaches in developing water quality standards. The uncertainty and confusion resulting from this diversity of approach have often delayed the establishment of enforceable standards. Our bill would require the Administrator of EPA to provide guidance to the States by promulgating regulations establishing specifications for water use designations, water quality criteria, and effluent limitations in advance of State action.

In setting water quality standards the States and the Federal Government would be required to take into account benefits which flow from increased use and value of water for public water supply, fish and wildlife, water-oriented recreation, agriculture, industry, and other purposes. The cost of moving to higher water use designations can be substantial, and the benefits incident to incurring this cost must be carefully weighed. Our proposal provides for making such assessments.

We cannot disregard the economic cost to municipalities, industries, consumers, and others occasioned in meeting approved standards. We must determine the relationship between ambient water quality goals in a particular body of water and the effluent discharged into that water body from various sources. The identification and description of all important sources—not just municipal and industrial—and determination of the relationship between discharges and water quality is necessary if we are to determine the benefits, costs, and effectiveness of

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various abatement strategies. A clear understanding of these factors is necessary in order to set meaningful target dates by which ambient water goals would be achieved. While we have a great deal to learn in this area, it is already quite clear that abatement costs will increase more rapidly as successively greater reductions in effluent discharges are achieved. We will be giving increased attention to this area, particularly to determining both the cost and effectiveness of alternative abatement strategies.

We believe that the problems of cost can be mitigated without sacrifice of water quality by improving our knowledge about the relationship between reductions in discharges and improved water quality and of the relationship between costs and benefits; by setting implementation schedules which are tight, but which are within the range of technological feasibility; through improved use of research, development, and demonstration funds to arrive at methods of meeting standards; through tax credits allowable in the Tax Reform Act of 1969; through the more cost effective approach we envision in funding municipal waste treatment facilities; and through more effective basinwide planning for water pollution cleanup.

We believe that Federal guidance is especially important in the area of effluent limitations. This concept is new in the law. It would be difficult and needlessly duplicative for each State to gather all the scientific and technological information upon which effluent limitations must be based. Federal leadership must be provided here so that the States in setting effluent limitations have a clear idea of the task. Our experience with the initial establishment of water quality standards by the States without the benefit of clear guidance, resulting in protracted delays, is the strongest possible argument for clear Federal direction at the outset of a new effort.

In our view the importance of effluent limitations cannot be overestimated. It is our intention that these limitations, to consist of clear descriptions of effluent quantity and quality, will tell industries and municipalities in unambiguous terms exactly what must be done to meet Federal requirements. We expect these limitations to be the principal basis for future enforcement actions.

We also propose a new category of effluent limitations and prohibitions which would be federally imposed with respect to elements and compounds which have been identified as hazardous to human health or welfare. Appropriate control of such substances must be immediate and direct taking all relevant factors into consideration.

ENFORCEMENT

Federal enforcement efforts should take full advantage of existing water quality standards and the more precise requirements we will have when effluent limitations are established. These standards and limitations will provide a solid benchmark for establishing water quality violations, and should serve as the basis for Federal enforcement actions.

We should be in a position to move effectively whenever we determine a violation of standards is occurring. We propose an enforce-

ment system that capitalizes on the administrative regulatory procedures which have matured in our legal system.

Its key elements are:

Initial administrative determination of a violation followed by instructions for appropriate remedy.

Issuance of an administrative compliance order and assessment of fines administratively.

Provision for administrative hearing at the option of the alleged violator.

All of this would be accomplished in a short time frame and action would be taken by those specially equipped and knowledgeable in this complex area.

We would be able to advance a long way toward achieving compliance at the administrative level, without any sacrifice of the equity and fair play and full hearing required by due process.

We would need to address the issues judicially only as a last resort; and then with a full hearing record which would be conclusive as to the facts.

Consistent with our proposal that water quality standards be extended to all navigable waters, whether interstate or intrastate, we propose that Federal enforcement authority be coextensive with the standard-setting authority and not limited to cases in which the pollution has interstate effects.

Of course the primary responsibility for enforcement remains with the States. Our proposals are in no way intended to diminish that role. But we must be able to act swiftly if the States fail to do so.

The inability to secure adequate information and data not available from Government sources concerning pollution has inhibited truly effective enforcement. We propose to give EPA broad authority to obtain information and data, to subpena witnesses and records for administrative proceedings and to require monitoring and reporting, all consistent with the due process requirements of law.

We would also authorize EPA to move immediately when an emergency presents an imminent and substantial danger to human health or welfare or to water quality by requesting the Attorney General to seek temporary or permanent injunctions in Federal court.

Citizen suits with appropriate safeguards would be authorized to enable private groups and individuals to compel compliance with specific requirements established under the law and to assure that the public interest will be protected where the law provides a clear duty and remedy.

I have appreciated the opportunity to appear before you during these three days of hearings. We look forward to the early enactment of legislation which will achieve the purposes which have been stated. We intend to cooperate with you fully in this process. I will be pleased to answer any questions you may have.

That concludes my statement, Mr. Chairman, and I would be happy to answer any questions.

Mr. ROBERTS. Before we hear questions from the committee, Mr. Ruckelshaus, I will enter into the record at this point your prepared statement.

(Statement referred to follows:)

STATEMENT OF HON. WILLIAM D. RUCKELSHAUS, ADMINISTRATOR, ENVIRONMENTAL PROTECTION AGENCY

Mr. Chairman and Members of the Committee:

It is a pleasure to be with you again for the third and last part of our presentation of the Administration's proposals for water pollution control. Previously I have covered the proposals regarding financial assistance for construction of municipal waste treatment works; state program grants; and ocean dumping. Today I will discuss our proposals for water quality standards and enforcement.

WATER QUALITY STANDARDS

The Federal Water Pollution Control Act, which has been structured largely by this Committee over the years, has built increasingly upon the foundation of standards. Water quality standards provide the basis for State and local action, and a means of measuring the progress of such action. They identify the remedial measures that must be taken by industries and municipalities. They provide the basis for Federal enforcement action as well.

We believe those standards should be strengthened and broadened. They should apply to all navigable waters and their tributaries, whether interstate or intrastate. They must be enforceable—and they can only be enforceable if they are clear and precise and as realistic as we can make them. They must be subject to development in keeping with advances in technology, and improvement in the reliability of the scientific data upon which they are based. As such they will provide the basis for continued enhancement. These are our goals in H.R. 5966.

We would extend water quality standards to all navigable waters and their tributaries, intrastate as well as interstate. Under present law, the Federal Government has authority to approve standards adopted by the States for interstate waters within their respective jurisdictions, and to promulgate Federal standards for such waters when the States fail to take appropriate action. No comparable authority exists for intrastate waters; the individual States are free to act or not to act as they see fit, and such standards as they establish are apt to vary widely in terms of their specificity and adequacy. Our legislative proposal would end the variations and gaps in coverage resulting from the present jurisdictional patchwork, and provide the basis for a comprehensive national system of water quality standards.

We would also extend water quality standards to ground waters. Such standards are particularly important in view of the likely tendency on the part of industries to resort to deep well disposal of highly toxic wastes as a means of escaping the requirements of increasingly stringent standards for surface waters.

We would provide for EPA establishment of water quality standards for the nine-mile contiguous zone, and for the high seas with respect to wastes originating within United States territory. These standards would be of assistance in implementing the ocean dumping proposal which I discussed yesterday.

Since the passage of the Water Quality Act of 1965, the States have taken many different approaches in developing water quality standards. The uncertainty and confusion resulting from this diversity of approach have often delayed the establishment of enforceable standards. Our bill would require the Administrator of EPA to provide guidance to the States by promulgating regulations establishing specifications for water use designations, water quality criteria, and effluent limitations in advance of State action.

In setting Water Quality Standards the States and the Federal Government would be required to take into account benefits which flow from increased use and value of water for public water supply, fish and wildlife, water oriented recreation, agriculture, industry and other purposes. The cost of moving to higher water use designations can be substantial, and the benefits incident to incurring this cost must be carefully weighed. Our proposal provides for making such assessments.

We cannot disregard the economic cost to municipalities, industries, consumers, and others occasioned in meeting approved standards. We must determine the relationship between ambient water quality goals in a particular body of water and the effluent discharged into that water body from various sources. The identification and description of all important sources—not just municipal

and industrial—and determination of the relationship between discharges and water quality is necessary if we are to determine the benefits, costs and effectiveness of various abatement strategies. A clear understanding of these factors is necessary in order to set meaningful target dates by which ambient water goals would be achieved. While we have a great deal to learn in this area, it is already quite clear that abatement costs will increase more rapidly as successively greater reductions in effluent discharges are achieved. We will be giving increased attention to this area, particularly to determining both the cost and effectiveness of alternative abatement strategies.

We believe that the problems of cost can be mitigated without sacrifice of water quality by improving our knowledge about the relationship between reductions in discharges and improved water quality and of the relationship between costs and benefits; by setting implementation schedules which are tight, but which are within the range of technological feasibility; through improved use of research, development and demonstration funds to arrive at methods of meeting standards; through tax credits allowable in the Tax Reform Act of 1969; through the more cost effective approach we envision in funding municipal waste treatment facilities; and through more effective basinwide planning for water pollution cleanup.

We believe that Federal guidance is especially important in the area of effluent limitations. This concept is new in the law. It would be difficult and needlessly duplicative for each State to gather all the scientific and technological information upon which effluent limitations must be based. Federal leadership must be provided here so that the States in setting effluent limitations have a clear idea of the task. Our experience with the initial establishment of water quality sandards by the States without the benefit of clear guidance, resulting in protracted delays, is the strongest possible argument for clear Federal direction at the outset of a new effort.

In our view the importance of effluent limitations cannot be overestimated. It is our intention that these limitations, to consist of clear descriptions of effluent quantity and quality, will tell industries and municipalities in unambiguous terms exactly what must be done to meet Federal requirements. We expect these limitations to be the principal basis for future enforcement actions.

We also propose a new category of effluent limitations and prohibitions which would be Federally imposed with respect to elements and compounds which have been identified as hazardous to human health or welfare. Appropriate control of such substances must be immediate and direct taking all relevant factors into consideration.

ENFORCEMENT

Federal enforcement efforts should take full advantage of existing water quality standards and the more precise requirements we will have when effluent limitations are established. These standards and limitations will provide a solid benchmark for establishing water quality violations, and should serve as the basis for Federal enforcement actions.

We should be in a position to move effectively whenever we determine a violation of standards is occurring. We propose an enforcement system that capitalizes on the administrative regulatory procedures which have matured in our legal system. Its key elements are:

Initial administrative determination of a violation followed by instructions for appropriate remedy.

Issuance of an administrative compliance order and assessment of fines administratively.

Provision for administrative hearing at the option of the alleged violator.

All of this would be accomplished in a short time frame and action would be taken by those specially equipped and knowledgeable in this complex area.

We would be able to advance a long way toward achieving compliance at the administrative level, without any sacrifice of the equity and fairplay and full hearing required by due process.

We would need to address the issues judicially only as a last resort; and then with a full hearing record which would be conclusive as to the facts.

Consistent with our proposal that water quality standards be extended to all navigable waters, whether interstate or intrastate, we propose that Federal enforcement authority be coextensive with the standard-setting authority and not limited to cases in which the pollution has interstate effects.

Of course the primary responsibility for enforcement remains with the States. Our proposals are in no way intended to diminish that role. But we must be able to act swiftly if the States fail to do so.

The inability to secure adequate information and data not available from Government sources concerning pollution has inhibited truly effective enforcement. We propose to give EPA broad authority to obtain information and data, to subpoena witnesses and records for administrative proceedings and to require monitoring and reporting, all consistent with the due process requirements of law.

We would also authorize EPA to move immediately when an emergency presents an imminent and substantial danger to human health or welfare or to water quality by requesting the Attorney General to seek temporary or permanent injunctions in Federal court.

Citizen suits with appropriate safeguards would be authorized to enable private groups and individuals to compel compliance with specific requirements established under the law and to assure that the public interest will be protected where the law provides a clear duty and remedy.

I have appreciated the opportunity to appear before you during these three days of hearings. We look forward to the early enactment of legislation which will achieve the purposes which have been stated. We intend to cooperate with you fully in this process. I will be pleased to answer any questions you may have.

Mr. ROBERTS. With reference to ground water, you state:

We would also extend water quality standards to ground waters.

Wherein do we have that authority, and where does it exist in the present law?

Mr. RUCKELSHAUS. Well, we don't have the authority under existing law, Mr. Chairman, and we are asking for extension of existing law because of a number of problems which have cropped up. One which I mentioned in my testimony. One, the disposal of toxic wastes in deep wells, which is sometimes a method adopted by industry, and we are worried that these toxic substances, through the ground water table, might contaminate existing water supplies.

Mr. ROBERTS. Where the State has complete control under the State permit system on ground water, would you interfere in that situation? I am speaking specifically of salt water injection wells. In water flooding of low-producing oil properties producers use water flood or water injection to bring the pressure back up. You have a State permit system on every well that is drilled, whether it is 100 or 5,000 or 10,000 feet.

Mr. RUCKELSHAUS. We would have no desire, Mr. Chairman, under the program to interfere with the existing State program that was adequately protecting water quality. The only reason for the request for Federal authority over ground waters was to assure that we have control over the water table in such a way as to insure that our authority over interstate and navigable streams cannot be circumvented, so we can obtain water quality by maintaining a control over all the sources of pollution, be they discharged directly into any stream or through the ground water table.

Mr. ROBERTS. You further state:

We would also authorize EPA to move immediately when an emergency presents an imminent and substantial danger to human health or welfare or to water quality by requesting the Attorney General to seek temporary or permanent injunctions in Federal Court.

I am sure you are aware of the fact that the Congress and the EPA are getting some very unfavorable publicity down in Texas because the Government had two or three airplanes down there to be used for spraying, and saying that EPA would not turn them loose. We have

1,200 dead animals up to now, and if you people—well, it is just about going to wipe out some of our quarter horse population down there.

Are you aware of this situation?

Mr. RUCKELSHAUS. I am not aware of all the specifics, Mr. Chairman. I was not directly involved in that. The first I heard of it was that our public affairs office got an inquiry regarding who in the agency had ordered those planes not to be released, and then they called me and asked me if I had anything to do with it, and I said I had never heard of it, and we checked around and found that it was a suggestion that had been made by somebody fairly far down in the Agency to whoever was in charge of that particular activity in Texas, and we were not really directly involved in it as an Agency at all. It was just an individual in the Agency who had given somebody his opinion, and they took it as an order.

Mr. ROBERTS. I believe the Air Force had two or three planes down there, and they said they were held up by EPA, and immediately our telephones started ringing, and people saying, "What are you going to do about it?" And we had to pass the problem to EPA, so I am sure you are going to hear a lot more about it.

Mr. RUCKELSHAUS. Well, I will look into the issue in more detail, and give you a report.

Mr. ROBERTS. Now, we are talking about citizen losses, and if they were able to sue EPA, we would have a lot of trouble about that.

Mr. RUCKELSHAUS. They are able to sue EPA.

Mr. ROBERTS. Well, we are very glad to have you here, Mr. Ruckelshaus. We appreciate the statements and your attendance before these hearings.

Does the Congresswoman from New York have a question?

Mrs. ABZUG. I have gone into this before with you, Mr. Ruckelshaus. I am somewhat concerned about the question of setting standards, because we have had practically no enforcement in the water pollution field.

I am not going to generalize, because I have heard a lot of talk, most of it in the field of compliance, about how much of this enforcement has taken place. The country is being polluted by all kinds of industrial facilities—we have testimony that 42,000 polluters exist. We have no suits that are pending, other than some 30 or 40 and no matter how you put it in the testimony, I gathered this opinion from this committee and other committees on which I serve.

I feel that the whole field must be much more vigorously enforced. I do not believe the administration bill begins to get at it. There are not enough times when there are clear deadlines as to what standards should be adopted. Standards have to be enforced. I think there is, despite what you testified to the other day, as I read this bill, a tremendous amount of decentralization of uniform codes nationally, and a lot of procedure that is going to take place which is going to present again the enforcement of the whole antipollution effort that I think is so sadly lacking in this country. And from all the testimony I have heard so far in this committee, I do not feel your bill is really different in great detail from the administration's bill. In two instances, (A) it still rests upon a procedure whereby there are standards that are

going to begin to be adopted on the first level, and if they do not, the administrator will insist on uniform standards and we know the polluters, and we do not have any enforcement provisions. And you are testifying about a bill which has a large enforcement procedure which will be largely talk, instead of initiating the proceedings in the court.

I think it is time we took action on the enforcement question. Otherwise, local polluters are going to be very influential in their States with the money they have, to prevent States from going after them in applying the standards and enforcing the standards against violators.

I do not know if this improves the administration's bill that you testified on this afternoon.

Mr. RUCKELSHAUS. Well, the process of setting standards and enforcing them has not worked. Nor do I question the fact that the reason it has not worked in the past is because it has not been used. We have set some standards and have not been very vigorous about enforcing them.

Mrs. ABZUG. That is right.

Mr. RUCKELSHAUS. That has not been true of this Agency. We have continued to enforce the standards, and we will continue to do so.

In fact, there is nothing wrong with the enforcement procedures in this bill. If the procedures are not used, it is the fault of the Agency, not the fault of the bill. There is adequate authority there to vigorously enforce standards already set, and to the extent that this Agency has not yet to date, in your opinion, shown a tendency to enforce the standards, that is not substantiated by the facts.

Mrs. ABZUG. Well, there was testimony that the reason there had been very few cases recommended for litigation by the Department of Justice is because the best way to handle it is to have a conciliating attitude. That is fine, but we cannot keep on conciliating with pollution. You say we should set up guidelines within 6 months for the Government, and a year for the States. I can see that taking 2 years or more before there are any regulations agreed to. That is what I get out of your bill right now. On the question of establishing guidelines, I see a minimum of 2 years from now, from the enactment of any bill. I am taking your own bill and your own figures.

Mr. RUCKELSHAUS. The fact of the matter is that almost all States now have standards that are enforceable, and this bill will not wipe out all of the existing standards, nor will it slow up the enforcement procedures that have already been initiated by the Agency. What we are attempting to do in this bill is to make it much clearer to everybody involved exactly what the standards mean, and make their enforceability much greater than is now true, because if we set water use designation and criteria as to how those designations are to be met, and effluent guidelines for the States, all they have to do is set effluent discharge standards for each industry discharging into those streams. We can set those standards now.

Mr. ROBERTS. If the Congresswoman is finished, we would have a lot of questions to send you before we wrap up on the bill. We have some people from New York to testify.

Have you finished questioning Mr. Ruckelshaus?

Mrs. ABZUG. Yes. I have finished with Mr. Ruckelshaus.

Mr. GROVER. Before we recess, if the chairman will bear with me for about 30 seconds, I think there is going to be something unique in the presentation after our brief recess. We know we want to clean up our Nation's water, and money gets involved, and the taxpayers pay that money, and we have an extremely unique situation in New York, in Suffolk County, my county, where we are undertaking a multi-hundreds of thousands of dollars project, and it is quite an experience for the taxpayers and for the legislators who have had the courage to promote it. I do want to alert the committee, and I would hope than many people that are interested in getting this Nation's waters cleaned up, will come back because in the end the job is going to have to be done by taxpayers' money. This is a difficult problem. This is a serious problem we have undertaken in our county, and someone has to deal with it. We must devise a new kind of formula to take the burden off the homeowner. It will be shown that the homeowner in Suffolk County is going to bear a disproportionately heavy taxpayer burden. So those are the interests of the taxpayers.

Mr. ROBERTS. Thank you, Mr. Grover.

The Chairman will submit whatever questions we need.

Thank you very much. We will recess until 2:15.

(Whereupon, the committee recessed at 1:45 p.m., to reconvene at 2:15 p.m., the same day.)

AFTERNOON SESSION

(The committee reconvened at 2:15 p.m., Hon. Ray Roberts presiding.)

Mr. ROBERTS. The committee will be in order.

The Chair takes pleasure in presenting the gentleman from New York, who will introduce our witness.

Mr. Grover.

Mr. GROVER. Thank you, Mr. Chairman.

During this afternoon's continued hearing, we have Hon. Sydney Askoff, who is chairman of the sewer committee of the Suffolk County legislature on Long Island, accompanied by Hon. John M. Flynn, commissioner, Suffolk County Department of Environmental Control.

These gentlemen have a very, very important message, Mr. Chairman, for all members of the committee. When it gets to putting pipes in the ground, and putting these plants into operation, as I indicated before the recess, it takes money. And in heavily developed suburbanized areas such as ours, it takes lots of money. And we do feel, those of us in New York, that we have been blazing trails for the preservation of the waters in all our States. We do feel that this message has in it the very guts, if I can use that expression, of the problem. And I think if all of the members are given occasion to read this statement, they should read it. I think we will have to take a long look at our financing methods and the policy by which we finance the State operations to clean up the Nation's water systems.

Mr. ROBERTS. Thank you, Mr. Grover.

Mr. Askoff, you may proceed. Would you identify for the record your other people?

John B. Hall
John E. Hall
Robert J. Halliday
James C. Harden
Robert B. Hare III
Gregory Harrison
Robert L. Hary
Guy S. Harwood
James E. Haskins
Michael J. Havrilla
Edward G. Hayden II
James L. Hayes
Arnold T. Haywas
Homer L. Hazel
Dennis J. Heilman
David H. Henderson, Jr.
Michael W. Henig
Leon F. Henley, Jr.
Roger D. Herring
Bruce A. Henry
John P. Hertel
Stephen M. Hill
William H. Hill III
Timothy J. Himes
Kingsley E. Hoemann
William D. Holcomb
John E. Holleraft
Louis S. Holler IV
William D. Hollister
James E. Hollopeter
Jack W. Holt, Jr.
Richard A. Houston, Jr.
Sylvester Howard
Vance B. Howerton, Jr.
Thomas W. Hoyes
Thomas P. Hudson, Jr.
Jan C. Huly
Jerry D. Humbe
Dennis B. Iserger
Timothy J. Ireland
Gordon R. Jackson
Robin S. Jackson
Joseph D. Jeffares
Sigvard L. Jensen III
Eddie E. Johansen III
Thomas S. Jones
Timothy J. Joyce
Larry J. Jurica
Kenneth M. Jurjevich
Robert L. Jones
Michael B. Kain
Terry E. Kane
Raymond J. Kaufman
Robert J. Keller
Michael M. Kephart
Joe Killebrew
Robert J. Kimble, Jr.
David L. King
Robert C. King
Bruce J. Kirry
Ray E. Kittlaived
Clifford H. Kittle, Jr.
Herbert W. Klein, Jr.
William L. Kleinpeter
Joseph Kochuba
Clifford J. Kolson II
Gregory C. Koons
Raymond M. Kruse
Walter M. Kubiak
Gregg C. Kubo
Mitchell A. Kudis
William P. Kyle
Paul A. Lambert
Roland L. Lambert, Jr.
Harry J. Landau
Charles E. Landry, Jr.
John Langdon II
Charles R. Larkin, Jr.
Michael W. Leach
David J. Lee
Dean J. Legidakis
Gregory C. Lemmer
James F. Leonard
Richard C. Lepley
Timothy B. Levan
Terry N. Lewis
Robert J. Livingston
Carl J. Lo Guidice
Herbert R. Long II
Leonard A. Long
Michael E. Love
John F. Lucas
Edmund A. Lucke
John R. Lynn
John M. Machen
James W. MacMurray Jr.
Don B. MacNamee
Thomas A. Manfredi
Edwin C. Mann
William T. Manning
Edmond W. Marks
Gary W. Marshall
George L. Marshall, Jr.
Thomas M. Marsilio
Terry L. Martin
Harold Markburn, Jr.
Danny C. Masters
Robert A. Matthews
Ave E. Matlox
Roger J. Mauer
William L. Mazey
Jerry C. McAtee
Robert P. McCaleer
Robert F. McCarthy
John I. McClurkin
Larry B. McCollum
Richard M. McCool III
Boyd S. McCord
John J. McDermott
Ian D. McDonough
Bryan M. McGill
Terry W. McKinsey
James F. McLean
Billy D. McMillin
Gene S. Mead
Kenneth H. Medeiros
William J. P. Melby
David L. Melott
Joseph A. Menart
Richard D. Metcalf
Francis J. Meyer
Robert D. Michael
Gene A. Milleson
Thomas P. Milne
Alex G. Mitkevich
Charles G. Mittnacht
Robert J. Moberg II
Robert A. Mobilio
Donald J. Monroe
Samuel Moore Jr.
William M. Moore
Richard C. Morgan
Terrence C. Morgar
Robert V. Morris
Louis R. Moyzan
John C. Mulliane, Jr.
Robert S. Mutcher
John W. Muth III
William M. Myers
Gerald N. Nance
James M. Naylor
Lannie D. Neal
John G. Nemse, Jr.
Paul S. Nickolaus
Mikan J. Nielsen
Raymond K. Noll
William R. Norton III
Jerry R. Oberg
Gerald R. Ogden
Ward C. Ogle
Gregory C. Okelly
Steven K. Olmstead
Thomas F. Oreilly
Michael C. Ossida
Paul R. Ottinger
Joseph J. Pantalone
Frederick D. Parker
Charles A. Partler II
James W. Parrish
Clarence F. Patten III
Christopher R. Pastel
William W. Pattiesn II
Ralph E. Pearcy III
Wiley H. Pearson
Frederick G. Peck
Hugh F. Phillips
Henry N. Pilger
John W. Pilz
Carl D. Plath, Jr.
Allan J. Polaschowski
Raymond L. Polak
Christopher C. Polson
James J. Porter, Jr.
Gregory M. Potter
Ronald G. Powell
Andrew N. Pratt
Francis J. Priest
Kenneth L. Priestley
Bernard C. Proctor
David A. Proffitt
Randall R. Pyles
Henry A. Pyzdrowski, Jr.
Leamons C. Ramsey
Garrett Y. Randll, Jr.
Robert W. Ratliban
Brett D. Rayman
Edward J. Reardon, Jr.
Peter J. Reding
James L. Reid
Steven S. Reinemund
John H. Reynolds
Larry J. Richardson
Dwight G. Rickman
David W. Riggs
James W. Rinschler
Richard H. Roamer
Edward J. Robsesh IV
Robert S. Robichaud
Edmond L. Robin
James R. Robinson II
Earl W. Rogers
Jeffrey A. Rogers
Winston E. Rorabaugh
Wiley J. Rosemond
James M. Rosen
Alfred G. Roth
Robert M. Rudolf
Jeffrey C. Rupp
Robert A. Rys
Robert J. Salter
Roger A. Sager
James E. Sall, Jr.
David W. Sanasack
Lewis M. Sanders
Edward J. Sandrick
David A. Sarnes
Ervin W. Scarlett, Jr.
Jeffrey E. Scheferman
Raymond W. S. Schellinger
David K. Schmidt
Robert D Schow
James B. Schwenk
Roland R. Seaman
James E. L. Seay
William J. Seerneyer
Gary C. Selzer
Ellsworth A. Shaw
Michael J. Shaw
Anthony P. Shepard
Stevan A. Shepherd
John E. Sherbin
Jimmy R. Shideler
James D. Shimp
Mitchell E. Shivers
James G. Shockley
Thomas J. Short
Bennie E. Simmons
Joel M. Skousen
James L. Smee
Arthur M. Smith, Jr.
Charles L. Smith
Delmer Smith
Dennis R. Smith
Edward D. Smith, Jr.
Lyle W. Smith
Terry A. Smith
William G. Smith
Jon W. Smythe
Leslie Solvemsey
Robert E. Sonnenberg Jr.
Douglas K. Spaulding
Jerry L. Spencer
Sidney L. Spurgeon
Joseph F. Stanard
Richard M. Stearns
Robert R. Steinhorst, Jr.
Stephen K. Steinmeyer
Thorys J. Stenerud
Bruce M. Stevens
Ronald L. Stevens
Henri P. Stewart
David A. Stockwell
John D. Stokes
Timothy F. Stoxler
Robert L. Strawser
Andre D. Summers
Larry A. Sunn
Leonard M. Supko
Donald F. Swanda, Jr.
John B. Switzer
Aloysius Sygniewski
Alfred J. Talevi
James M. Tarkington
Rex N. Taylor
Jon D. Terry
Paul W. Thomas
Jimmie R. Thompson
John L. Thompson
Wayne F. Thompson
Joseph Thorpe
Eric B. Thuesen
Joseph Thurmond
Theodore K. Tolis
James F. Trabern
Dennis E. Tripp
Robert F. Turnyfill
Craig J. Turner
Conrad B. Turney
Douglas D. Tyler
Larry F. Vance
Martin R. Vanderbrook
Neal W. Vanhouten, Jr.
John A. Vanstenenberg
Lowell F. Vanwagenen
Robert J. Varley
Gerald A. Vianello
Bruce B. Wahlsten
William W. Walker
Lawrence C. Walt
Clark L. Waters
Larry D. Walters
James G. Ware
Merrill C. Waters
David M. Webster
Michael J. Weiss
Charles N. Wells
Steven G. Western
Robert H. Whitlock
Paul A. Whitham
Gene W. Whitten
Leo V. Williams III
Nicholas J. Williams, Jr.
Norris E. Williams
Clarence E. Willis, Sr.
Douglas G. Wilson
Thomas E. Wilson
Richard P. Wolfe
Thomas S. Wolfe
James E. Woodruff, Jr.
Donald W. Workman
Gary J. Wright
James L. Young III
George E. Zakelsek
William E. Zales, Jr.

WITHDRAWAL

Executive nomination withdrawn from the Senate March 28, 1972:

IN THE COAST GUARD

Capt. William H. Brinkmeyer, U.S. Coast Guard, from further consideration for appointment to the grade of rear admiral, U.S. Coast Guard. His name was submitted together with that of one other nominee for appointment to the grade of rear admiral in the Coast Guard on March 20, 1972.

HOUSE OF REPRESENTATIVES—*Tuesday, March 28, 1972*

The House met at 12 o'clock noon.

Rev. Bob W. Parrott, Seabrook United Methodist Church, Seabrook, Tex., offered the following prayer:

Let us pray.

Almighty God, we have desired position more than wisdom to handle the responsibility. And we have paid for it, not in loss of office, but in loss of confidence that we are doing our best.

Help us regain integrity, which comes by being truthful. The truth is, before we vote, we need to listen—to those who put us in office and to You who put us in the world.

You have programed us with a curiosity to fly to the moon, and beyond; with a desire to help the underdog; with the potential to be truthful. O God, electrify this Chamber with truth in order that our words and actions will declare, "Not my will but Thy will be done."

In Jesus' name, Amen.

THE JOURNAL

The SPEAKER. The Chair has examined the Journal of the last day's proceedings and announces to the House his approval thereof.

Without objection, the Journal stands approved.

There was no objection.

REV. BOB PARROTT, PASTOR, SEABROOK UNITED METHODIST CHURCH

(Mr. CASEY of Texas asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. CASEY of Texas. Mr. Speaker, it has indeed been our honor to have our invocation given by the Reverend Bob Parrott, pastor of the Seabrook United Methodist Church, which is part of my congressional district.

Reverend Parrott is truly a "space-age person," as his church is located near the Manned Spacecraft Center, and he has astronauts and NASA personnel as most of his congregation. He is an instrument-rated pilot, flies his own Beechcraft Bonanza, and has authored two space-oriented books, "A Man Talks With God," and "Earth, Moon, and Beyond." He has a third book scheduled to be published late this year.

Rev. Bob Parrott's real pride and ac-

Mr. HOLIFIELD. Mr. Chairman, I take the well at this time to make some legislative history locally, and I would like to have the attention, if I might, of the manager of the bill, Mr. JONES, and the manager, Mr. HARSHA. On page 372 of the bill, section 6, there is a definition of the word "pollutant." On line 10 there occur the words "radioactive materials." Has the gentleman found those words? On page 131 of the report, in the second indented paragraph, the following language appears:

The term "pollutant" as defined in the bill includes "radioactive materials." These materials are those not encompassed in the definition of source, byproduct, or special nuclear materials as defined by the Atomic Energy Act of 1954, as amended, and regulated pursuant to that Act. "Radioactive materials" encompassed by this bill are those beyond the jurisdiction of the Atomic Energy Commission. Examples of radioactive material not covered by the Atomic Energy Act, and, therefore, included within the term "pollutant," are radium and accelerator produced isotopes.

The question I should like to ask the gentleman from Alabama, the manager of the bill, is this: Is that a true and clear definition of the intent of the committee in the utilization of the words "radioactive materials" on line 10, page 372?

Mr. JONES of Alabama. The gentleman is correct. That was the intent. The gentleman has just read from page 131 of the report, and that is our specific intention, as I understand.

Mr. HOLIFIELD. I thank the gentleman for that response, and I assume it is the intent of the gentleman, if he is one of the managers of the bill in conference, to try to sustain that definition to the best of his ability.

Mr. JONES of Alabama. Certainly I shall be directed by the action of the House on a bill, and will stand as steadfastly for that action as I know how.

Mr. HOLIFIELD. I thank the gentleman from Alabama.

Mr. HOSMER. Mr. Chairman, will the gentleman yield?

Mr. HOLIFIELD. I yield to my colleague from California.

Mr. HOSMER. I should like to address the same question to the gentleman from Ohio and also another question.

Mr. HARSHA. Mr. Chairman, will the gentleman yield?

Mr. HOLIFIELD. I yield to the gentleman from Ohio.

Mr. HARSHA. I will respond in the affirmative to that question. That is definitely what we mean. As I said earlier in the debate on the Wolff amendment, we intended to leave the jurisdiction of radioactive material that came within the Atomic Energy Act up to the Atomic Energy Commission. The language applies only to everything outside the jurisdiction of AEC. That is definitely the intent of the wording of the bill and the intent of the committee.

Mr. HOSMER. Mr. Chairman, will the gentleman yield further?

Mr. HOLIFIELD. I yield to the gentleman from California.

Mr. HOSMER. I would like to ask the gentleman from Ohio a further question. Earlier in the afternoon a point of order was made to an amendment offered by the gentleman from New York (Mr. WOLFF). The point of order was decided upon a definition of the words "radioactive material." The same definition is contained in the bill before the House today. There is no distinction raised between the source, byproduct and other nuclear material as defined in the Atomic Energy Act of 1954. I ask the gentleman if it is his intent that the ruling was made in recognition of the distinction between the definitions?

Mr. HARSHA. I do not know that I could answer on what basis the Chairman or the Parliamentarian based their ruling. I felt it was not germane to this act in view of the way we had written the language of the act and the language of the report. We definitely intended to exclude from our jurisdiction of radioactive material that which lies within the jurisdiction of the Atomic Energy Commission under the Atomic Energy Act.

Mr. HOSMER. That is exactly the way I see it. I thank the gentleman.

Mr. EDMONDSON. Mr. Chairman, will the gentleman yield?

Mr. HOLIFIELD. I yield to the gentleman from Oklahoma.

Mr. EDMONDSON. Mr. Chairman, I want to thank the able gentleman from California for helping to clarify the earlier position as included in the earlier ruling. As a member of the Committee on Public Works and also as a member sitting on the Joint Committee on Atomic Energy, it has been enlightening to me. There is no intention on the part of the Committee on Public Works to move into the jurisdiction of the Joint Committee on Atomic Energy, or in any way to disturb the existing responsibilities that are declared under that law.

AMENDMENT OFFERED BY MR. ASPIN

Mr. ASPIN. Mr. Chairman, I offer an amendment.

The Clerk read as follows:

Amendment offered by Mr. ASPIN: Page 277, line 8, after "navigable waters" insert "and the ground waters".

Page 277, line 4, after "such" insert "navigable and ground".

Page 278, line 3, after "navigable waters" insert "and ground waters".

Page 278, line 6, after "such" insert "navigable or ground".

Page 281, line 8, after "navigable waters" insert "and ground waters".

Page 372, line 14, strike out "water." and all that follows down through and including "(C)" on line 22.

Page 372, line 24, strike out "(D)" and insert "(C)".

Page 373, line 21, after "navigable waters," insert "ground waters,".

Page 374, line 4, strike out the period and insert in lieu thereof a comma and the following: "(C) any addition of any pollutant to ground waters from any point source."

Mr. ASPIN (during the reading). Mr. Chairman, I ask unanimous consent that the amendment be considered as read and printed in the RECORD.

The CHAIRMAN. Is there objection to the request of the gentleman from Wisconsin?

There was no objection.

Mr. ASPIN. Mr. Chairman, the amendment which the gentleman from Massachusetts (Mr. CONTE) and I are introducing involves some small but important changes in the bill, concerning one subject: ground water pollution. Ground water is that water which lies below the surface of the earth. It is in reservoirs and pools, it is well water, it is drinking water. In other words, it is subsurface water.

Mr. Chairman, the bill we have before us today deals mostly with navigable water, rivers and streams and lakes and other surface waters but it deals only ambiguously and, in some cases, inconsistently with the subject of ground water. The purpose of our amendment is to eliminate some of these ambiguities and inconsistencies.

The amendment does two things, two very simple things.

First, the amendment brings ground water into the subject of the bill, into the enforcement of the bill. Ground water appears in this bill in every section, in every title except title IV. It is under the title which provides EPA can study ground water. It is under the title dealing with definitions. But when it comes to enforcement, title IV, the section on permits and licenses, then ground water is suddenly missing. That is a glaring inconsistency which has no point. If we do not stop pollution of ground waters through seepage and other means, ground water gets into navigable waters, and to control only the navigable water and not the ground water makes no sense at all.

So our amendment eliminates that inconsistency.

The second thing our amendment does is eliminate the inconsistency between the way we treat oil companies in this bill and the way we treat other companies. Oil companies and other industries can pollute ground water, through the operation of what are called "waste injection wells."

Industry sinks wells into the ground to get rid of waste. The chemical industry sinks wells into the ground to get rid of waste. The steel industry sinks wells into the ground to get rid of waste. The oil industry does it. The danger to the ground water from these waste injection wells is obvious. If the waste injection well is not built properly, if standards are not met, if the waste injection well is not operated properly, the pollution of ground water can result.

What this bill does is cover the waste injection wells of every industry except oil. The waste injection wells of the chemical industry are covered. The waste injection wells of the steel industry are covered. The waste injection wells of every industry except oil are covered. But, Mr. Chairman, 99 percent of all the waste injection wells in this country are oil industry waste injection wells.

Again, this is an inconsistency which should not be allowed to stand. This amendment would eliminate this inconsistency.

Mr. Chairman, the amendment offered by the gentleman from Massachusetts (Mr. CONTE) and I really does not raise the question of strengthening or weakening the bill, but would simply make this important legislation more consistent and rational.

Mr. Chairman, I urge the adoption of this amendment.

Mr. RONCALIO. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, as much as I hate to oppose the amendment offered by the esteemed gentleman from Wisconsin, with whom I have spent a great deal of time since we came to the 92d Congress together, I must oppose him on these basic grounds.

The saline content of water that is seeped into the ground and returns to the aqua turf or streamflow is not a point discharge. This entire bill is applicable to it.

Second, I would like to call your attention to page 131 of the committee's report on H.R. 11896 wherein the committee's intent is clearly and forcibly stated, and I quote:

> It is the intent of the Committee that the exclusion from the term "pollutant" relating to the injection of water, gas, or other materials into wells applies only to the properly executed injection of materials into wells to stimulate the primary, secondary, or subsequent production of crude oil or natural gas, and to the properly executed disposal in wells of brines derived in association with the production of crude oil or natural gas, with appropriate precautions taken to assure that such injection or disposal does not lead to, or make substantially more likely, the degradation of usable water resources. *For such exclusion to be effective, the State is required* (1) to approve the well used either to facilitate production or for disposal purposes, and (2) to make a determination, based on sufficient investigation and evidence that such degradation has not taken place and has not been or will not be made substantially more likely as a result of such injection or disposal."

If the State fails to approve the wells or fails to make the required determination, then there is no exclusion from the coverage of the term "pollutant." I believe this is a fair and reasonable approach and strongly urge that the amendment be defeated.

Mr. DON H. CLAUSEN. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, in the early deliberations within the committee which resulted in the introduction of H.R. 11896, a provision for ground waters, similar to that suggested by the gentleman from Wisconsin, was thoroughly reviewed and it was determined by the committee that there was not sufficient information on ground waters to justify the types of controls that are required for navigable waters.

We recognized this lack of information and date and the committee sought to correct it.

I refer the gentleman to the objectives of this act as stated in section 101(a). The objective of this act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.

I call your attention to the fact that this does not say the Nation's navigable waters," "interstate waters," or "intrastate waters."

It just says "waters." This includes ground waters.

In section 102 the Administrator in cooperation with other Federal and State agencies is required to prepare and develop comprehensive programs for abating and reducing the pollution of the Nation's waters and ground waters and for improving the sanitary conditions of both surface and underground waters.

In the development of such programs, the Administrator is required to consider those improvements which are necessary to conserve surface and underground waters for public water supplies, propagation of fish and aquatic life and wildlife, recreational purposes, and agriculture, industrial, and other legitimate actions.

We recognized the need for control of the disposal of pollutants into wells in order to protect our ground waters. Therefore, in section 402(b)(1)(D) we provided that the Administrator shall approve a State program unless he determines that authority does not exist to control the disposal of pollutants into wells.

As I stated, the committee recognizes the need for research and development both in determining the effects of underground disposal of pollutants and the migration of such pollutants.

The Administrator under his broad research powers as set out in sections 104, 105, and 106 is expected to concentrate a portion of his research effort on the study of underground disposal in order that the Congress might have a basis for determining the need and appropriately extending the controls of H.R. 11896 as they apply to navigable waters to ground waters if needed.

The gentleman from Wisconsin testified during the committee's hearings that he felt that we should delete item (B) of paragraph (c) of section 502.

While the committee did not delete the provision in question, I call to my colleague's attention lines 20 through 22 of page 372 of H.R. 11896. The committee added language specifying that the exemption is applicable only if the State involved has determined that the injection or disposal of such water, gas or other material will not result in the degradation of ground or surface water resources.

I then call my colleague's attention to page 131 of the committee report. I read from the report:

> It is the intent of the Committee that the exclusion from the term "pollutant" relating to the injection of water, gas, or other materials into wells applies only to the property executed injection of materials into wells to stimulate the primary, secondary, or subsequent production of crude oil or natural gas, and to the properly executed disposal in wells of brines derived in association with the production of crude oil or natural gas, with appropriate precautions taken to assure that such injection or disposal does not lead to, or make substantially more likely, the degradation of usable water resources. For such exclusion to be effective, the State is required (1) to approve the well used either to facilitate production or for disposal purposes, and (2) to make determination, based on sufficient investigation and evidence, that such degradation has not taken place and has not been or will not be made substantially more likely as a result of such injection or disposal.

The report language makes it clear that State approval of any disposal will be based upon investigation and evidence.

I believe this committee amendment and the legislative history clarify the intent of the provisions of paragraph (c) of section 502. I do not believe further amendments or deletion is required to protect our waters. I do not agree with the gentleman from Wisconsin. I urge the House to reject the amendment.

Mr. FASCELL. Mr. Chairman, I rise in support of the amendment.

Mr. Chairman, it seems to me the issue is equal application of Federal standards. If we are going to make these standards apply to the steel companies and the chemical companies and the paper companies who have the least part of this ground water problem, it seems to me that we ought to make it apply equally to oil companies that have the greatest part of the ground water problem.

If injections that affect ground water are properly handled, there need not be any danger, but from what I have heard and understood with respect to the potential of this pollution, and it is very vital in the State of Florida, just as it is all over the country, the contamination would last for centuries because of the fact that there are no living organisms in the water and it is very slow moving. Once that happens I am not sure what it would take to undo it.

It seems to me that we should not have State standards subject to review on the Federal level in one case and in the other case have only Federal standards that everyone will have to live up to. If we are going to be fair, we should do it across the board. We should have Federal standards that everyone will have to live up to.

Mr. HANNA. Will the gentleman yield?

Mr. FASCELL. I yield to the gentleman.

Mr. HANNA. Does the gentleman understand, as I do, that what we are talking about here is the enforcement provisions relating to the standards which this amendment tries to make across the board, including the oil companies?

Mr. FASCELL. That is the way I understand it.

Mr. HANNA. And the testimony of the other gentleman that there is wordage in the bill that includes ground water is true, but we are talking about a specific section of the bill that has to do with enforcement under the standards.

Mr. FASCELL. That is the way I understand it. We are talking about equal application of the enforcement provisions.

Mr. HANNA. I thank the gentleman.

Mr. ROBERTS. Mr. Chairman, I rise in opposition to the amendment.

Mr. Chairman, I am very much appreciative of what the gentleman seeks to do, but he is missing the point a little bit. He is confusing injection with secondary recovery from oil wells. The committee understood it, and I think he has missed the point.

When you bring out a barrel of oil, you bring out from three to five barrels of salt water with it. If you put that salt water back in the same hole that you took it out of—and you have to do that if you are going to keep recovering oil—you are not polluting but, in fact, you are putting it back in the same hole and in the same strata.

There is no industry in the world that is regulated as much as the drilling industry. Every State where they produce oil requires surface casing, which is a big piece of steel pipe that is cemented on all the way through the fresh water stratas. When you pump the water back, it goes into a smaller tube into that same strata, and it mingles with that production.

I agree with the gentleman in his basic statement concerning ground water, but he is talking about two different things here.

Mr. Chairman, I urge that this amendment be rejected.

Mr. ASPIN. Will the gentleman yield?

Mr. ROBERTS. I am happy to.

Mr. ASPIN. I understand what the gentleman is saying about how the oil industry is different in that it uses the pumped waste into the ground to get a secondary recovery.

Mr. ROBERTS. You are confusing waste and pollution because it comes out of one place and goes into the same place.

Mr. ASPIN. Exactly. But as it comes out and then goes back it passes through the ground water.

The effect is going to be no different with pumping oil than pumping paper waste from paper mills or waste from the steel industry.

Mr. ROBERTS. It goes through the casing and down through the casing and it is cemented. We had a scientist to testify to the effect that the casing is solidly cemented. The scientist testified that in 1970, which was the last year we had figures on this matter, there were probably six failures that polluted ground water. Five of those were in a section that had been abandoned some time back in the twenties. Only one well—and we are not sure it was a failure—showed evidence of this. So, there is absolute protection from the secondary recovery of the oil business, whether it is gas or oil or water and there should be. I agree with the gentleman's position that we ought to be sure, but we have more stringent regulations now on the oil industry than we could ever impose through this legislation.

Mr. ASPIN. If the gentleman will yield further, if that is the case and if the oil company is doing such a good job, then why not let it come under the regulations just the same as the chemical companies, the steel companies, and others?

Mr. ROBERTS. Because we have already got them regulated in a similar fashion in which the Atomic Energy Commission, for instance, is regulated as well as others are already regulated.

Mr. CONTE. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I rise in support of the amendment offered by my colleague (Mr. ASPIN).

The amendment would delete section 502(b) from the bill before us today. That section presents yet another example of special favorable treatment for oil producers. Its inclusion in the bill demeans the very honest attempt that has been made to produce a progressive, fair, and effective bill to clean up our waters.

Under section 102(a) of the proposed legislation, the Administrator of EPA is authorized to make investigations of any "pollutant." Section 502(b), however, would exclude from such scrutiny the material which oil companies inject into their wells to facilitate production. For some unknown reason we are asked to declare by legislative fiat that such material should not be classified as a pollutant. Considering the threat that such injections pose to our groundwaters, I can only conclude that section 502(b) is based on the financial interests of the oil companies rather than on a concern for clean water.

This is just one more loophole that has been forged by the powerful oil lobby. Are we going to again close our eyes to the interests of the public in order to serve the interest of the oil barons? When will they be satisfied? They are already protected from foreign competition by the oil import quotas which cost our consumers more than $5 billion per year in excess prices. Their special tax breaks result in an annual loss to our Treasury of more than $4 billion. The Justice Department, through inaction, has granted them immunity from antitrust violations in their acquisition of other competitive energy sources, such as coal and uranium.

And now we are asked to grant them immunity from EPA scrutiny of the effects of their drilling practices. Our answer to their latest request for favored treatment must be "no." To give such an answer we must delete section 503(b) by approving the amendment offered by my colleague, Mr. ASPIN.

Mr. McCLORY. Mr. Chairman, will the gentleman yield?

Mr. CONTE. I am glad to yield to my colleague, the gentleman from Illinois (Mr. McCLORY).

Mr. McCLORY. Mr. Chairman, I rise in support of the amendment offered by my colleague from Wisconsin (Mr. ASPIN) and cosponsored by my colleague from Massachusetts (Mr. CONTE) to include ground water within the provisions of the Water Pollution Control Act of 1972.

Mr. Chairman, to consider that we are providing for protection of the surface waters—which we can see—and omitting from the strong provisions of this measure vast ground-water supplies—is to my mind unthinkable.

Mr. Chairman, the extent of pollution of surface waters is readily visible. In addition, there is ready access to these waters when it comes to eliminating pollutants. However, the problem of eliminating pollution from ground waters—once these become polluted—is far more complicated. The eventual points which may be reached by polluted ground waters are virtually unknown.

Mr. Chairman, we know that vast bodies of ground waters have already been polluted by nondegradable detergents. All ground-water supplies could be threatened unless protection is provided in this bill by specifically including ground waters within the definition as contained in section 502(b) and elsewhere.

Mr. Chairman, I support this amendment and hope that it will receive the favorable vote of the Members.

Mr. HARSHA. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, the first part of this amendment purports to require water-quality standards for ground water. We do not have the knowledge or the technology to devise water-quality standards for ground water. We do not as yet know how to do that; we do not have the ability. That is why we have provided for the study by the Administrator to determine that.

The second part of the amendment deals with the question of the injection process, and the technology for the extraction and the removal of oil and gas. This is a highly technical process, certain technology has to be perfected in order to successfully extract the oil and the gas from under the ground.

Initially the gentleman came to the committee with his amendment, and at that time there were not as many safeguards in the bill as there have been included since his appearance before the committee. As a result of the committee's consideration of the gentleman's amendment we added an amendment which I offered which is H.R. 11896—is much more stringent than S. 2770—its Senate-passed counterpart, on this issue. My amendment on page 372, line 17, tightens this provision down considerably and will not permit this process until the State makes a finding or determination that such process will not degrade the waters. This provision recognizes that those States which pioneered and developed effective methods of protecting subsurface waters against contamination from oil and gas production—long before any great public concern about surface water pollution—shall continue to have primary responsibility for protecting those subsurface waters.

The injection or brine water resulting from petroleum operations back into the earth for disposal purposes is itself an important form of pollution control. Similar injection of "water, gas, or other material" to facilitate production—referred to in the petroleum industry as "secondary recovery"—is not only an excellent form of pollution control, but also the only known method for bringing up millions upon millions of barrels of oil that otherwise would be totally lost to this country. Water flood recovery, already of tremendous importance, now accounts for almost one-third of all the petroleum produced in the United States, and in the years ahead secondary recovery is expected to continue to contribute substantially to our energy supplies.

Few people outside the petroleum producing States are sufficiently aware of a simple, but crucial fact about the production of oil and gas. Normally, the same well that produces oil and gas also produces from the same reservoir varying quantities of associated water, ranging from fresh to saline. Huge volumes of water are commonly found in the same underground strata as oil and gas and come up with produced oil and gas.

In 1970, for example—the latest year for which complete data are available—the United States produced 9,447,000 barrels of crude oil and 64,327,000,000 cubic feet of natural gas per day. Pro-

duced in association with this oil and gas were more than 80 million barrels of salt water per day. Produced in association with this oil and gas were more than 30,000,000 barrels of salt water per day. Put another way, on the average, for every barrel of crude oil that comes up, about three barrels of salt water also come up. All of this salt water—which for the year 1970 amounted to more than 11 billion barrels—must be disposed of safely, somewhere. Both disposal wells and secondary recovery injection wells return the salt water deep into the earth from which it originally came. Most fresh water strata lie near the surface of the earth, usually hundreds, sometimes thousands of feet above the strata into which the disposal and secondary recovery water is injected. Such wells actually offer the best and sometimes the only disposal method available to oil producers, who otherwise would be compelled to dispose of the salt water in evaporation pits on adjacent lands or in surface waters.

Over the years, the State regulatory bodies where substantial petroleum operations are conducted have built up a vast store of knowledge essential to the full protection of subsurface waters. These agencies are thoroughly familiar with petroleum operations and the local geology where such operations are conducted. They have experts knowledgeable in such disciplines as fluid dynamics and reservoir and petroleum engineering. Such knowledge is needed in evaluating applications for disposal and secondary well permits. Approval of these wells, for example, involves such technical data as permeability and porosity of the underground strata, which govern the amount and flow-rate of liquids and gases; the geographic extent of the reservoir; and the pressure of the reservoir.

During the last 25 years, and particularly during the last 10 years, the State regulatory agencies have developed and enforced oil-field disposal and secondary recovery methods which have reduced the risk of subsurface pollution to a minimum. Without prodding or assistance from the Federal Government they have established a record of strict and effective control over oil and gas operations involving deep disposal and secondary recovery production. It does not seem appropriate that such control should be displaced by new Federal authority.

Therefore, Mr. Chairman, I urge the defeat of the amendment.

Mr. DON H. CLAUSEN. Mr. Chairman, will the gentleman yield?

Mr. HARSHA. I yield to the gentleman from California.

Mr. DON H. CLAUSEN. Mr. Chairman, I appreciate the gentleman yielding to me.

I would state to the gentleman that I believe the testimony reveals in these States that the standards and requirements are substantially higher than in many cases are necessary.

Mr. HARSHA. That is quite true. The injection of the brine resulting from a petroleum operation back into the well, is in itself a pollution abatement, or pollution control process.

Mr. DON H. CLAUSEN. I thank the gentleman.

Mr. SISK. Mr. Chairman, will the gentleman yield?

Mr. HARSHA. I yield to the gentleman from California.

Mr. SISK. Mr. Chairman, I appreciate the gentleman yielding to me.

Mr. Chairman, I think this is a very dangerous amendment, and I hope that we do not accept it lightly because, as I understand, what they are attempting to do here is bring ground water under the control of the EPA. It is further my understanding that the committee has provided for a study of this subject.

Is that correct?

Mr. HARSHA. The gentleman is correct.

Mr. SISK. I am wholly in favor of that. I recognize the possibility of pollution of ground water, but this whole matter at this point in time, with no more knowledge than we have, bringing this ground water under this type of control, is improper, and I think is a very dangerous thing to do. I would certainly hope that the House would not adopt the amendment.

Mr. KASTENMEIER. Mr. Chairman, I move to strike the requisite number of words.

Mr. Chairman, I rise in support of the amendment offered by my colleague, the gentleman from Wisconsin (Mr. Asrin), to bring ground water under the coverage of the Federal Water Pollution Control Act Amendments of 1972, which we are now considering.

The committee bill is drilling a loophole into which contaminants from the injection wells of the oil producers will be permitted to flow, thus adding to the pollution of our ground water resources. This is inexcusable. There is no other industry in America that is more pampered and that benefits more from special-interest legislation than that of oil. Not content with import quotas, tax writeoffs, a 22-percent depletion allowance, international cartel arrangements and joint ventures—all of which cost the American public additional billions of dollars each year—the oil industry and its friends in the Congress now have the sheer nerve to seek an exemption from our antipollution laws.

In the United States far more fresh water is stored in aquifers than in all the Nation's rivers, reservoirs, and lakes. With proper planning, this vast storehouse of fresh water can be managed as effectively as surface reservoirs. Around 20 percent of the Nation now is dependent on ground water. Nearly one-third of the 100 largest cities in our country obtain all or part of their drinking water from wells. About 90 percent of rural families drink ground water. More than half the water used for irrigation and livestock comes from underground water. Ground water used to have a reputation of being free of chemical and biological contamination. Now, this resource, too, is threatened by pollution. Unlike surface water, however, the slow movement of ground water makes the correction of pollution both time consuming and very expensive. While injection wells may represent the best presently available technology for dealing with certain oil industry pollutants, it is not in the best public interests to grant the oil industry in perpetuity the free and unregulated privilege of continuing to pump into such wells numerous chemicals and other pollutants, such as brine and acid, which eventually may escape into ground water and thus destroy the purity of this important water resource.

Mr. Chairman, if we are to be serious about our efforts to stop pollution and to begin the immense task of restoring the quality of our environment, in this instance, our water resources, then it would be the height of hypocrisy for the Congress to grant any exemption and, in particular, to one of the Nation's greatest polluters, the gluttonous oil industry, from our basic antipollution laws. I urge my colleagues to accept this amendment which will assure that the pollution of ground waters is subjected to the same regulation as pollution of navigable waters.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Wisconsin (Mr. Asrin).

The question was taken; and on a division (demanded by Mr. Asrin), there were—ayes 34, noes 86.

So the amendment was rejected.

Mr. DANIELS of New Jersey. Mr. Chairman, I rise in support of H.R. 11896.

This is probably one of the most difficult and complex pieces of legislation this body has ever considered. It creates the basis, foundation and framework for the total and eventual solution to the problem of cleaning up our Nation's waters.

We have moved from 1956 and the days before that to a period, over the last 18 years, when all of us know that the American public wants and demands that this job be done. Here is the bill that will do it. It is the result of countless weeks and months of work in the Committee on Public Works which was the creator of the original Federal program for water pollution legislation.

The bill today will give us in one complete package the start to provide funding, planning, research, programing, and enforcement to achieve our goals. The money in it is but the beginning, but it is a start. The time has come when we must vote and vote for what is needed.

This bill is the answer, and I urge its adoption without amendment.

Mr. LEGGETT. Mr. Chairman, I believe the Public Works Committee should be complimented on this bill. It is a commendable piece of legislation which makes a sincere effort to come to grips with our water pollution problems. In some respects it is even preferable to the excellent bill the Senate passed unanimously. It authorizes $18.35 billion for waste treatment construction grants, allotted to States on the basis of need. In contrast, the Senate bill only authorizes $14 billion for waste treatment, and allots it on the less justifiable basis of population. The House bill authorizes a total of $24.62 billion through fiscal year 1985, as opposed to only $20 billion in the Senate bill.

The House bill originates the concept, not mentioned in the Senate bill, of a $100 million Environmental Financing Authority, set up in the Treasury Department, which would make low-interest loans to communities unable to bor-

Message

From: Fotouhi, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FEBAF0D56AAB43F8A9174B18218C1182-FOTOUHI, DA]
Sent: 4/15/2019 7:48:30 PM
To: Ayliffe, David Demar [ddayliffe@tva.gov]
Subject: Final Interpretive Statement
Attachments: Interpretive Statement Application of CWA NPDES Memo - Signed.pdf

David:

The attached document is being posted on our website today.

Best,

David

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 12 2019

OFFICE OF
WATER

INTERPRETIVE STATEMENT

SUBJECT: Application of the Clean Water Act National Pollutant Discharge Elimination System Program to Releases of Pollutants from a Point Source to Groundwater

FROM: Matthew Z. Leopold
General Counsel

David P. Ross
Assistant Administrator for Water

TO: Regional Administrators, Regions I – X

This Interpretive Statement sets forth the Environmental Protection Agency's ("EPA" or "the Agency") interpretation of the Clean Water Act ("the CWA" or "the Act") National Pollutant Discharge Elimination System ("NPDES") permit program's applicability to releases of pollutants from a point source to groundwater that subsequently migrate or are conveyed by groundwater to jurisdictional surface waters. For the reasons explained below, EPA concludes that the Act is best read as excluding all releases of pollutants from a point source to groundwater from NPDES program coverage and liability under Section 301 of the CWA, regardless of a hydrologic connection between the groundwater and a jurisdictional surface water. *See* 33 U.S.C. §§ 1311(a), 1342.

This Interpretive Statement is the first instance in which the Agency has issued guidance focused exclusively on whether NPDES permits are required for releases of pollutants to

groundwater that reach surface water. As described further below, there is a mixed record of prior Agency statements addressing this issue and a split in the federal circuit courts regarding the application of the NPDES permit program to releases of pollutants to groundwater that reach jurisdictional surface waters. Recent judicial decisions addressing this issue contribute to an evolving and increasingly confusing legal landscape in which permitting and enforcing agencies, potentially regulated parties, and the public lack clarity on when the NPDES permitting requirement set forth in sections 301 and 402 of the CWA may be triggered by releases of pollutants to groundwater. The absence of a dedicated EPA statement on the best reading of the CWA has generated confusion in the courts and uncertainty for EPA regional offices and states implementing the NPDES program, regulated entities, and the public. This Interpretive Statement is intended to advise the public on how EPA interprets the relevant provisions of the CWA.

This Interpretive Statement conveys to EPA's regional offices, states, and the public the Agency's reading of the applicability of sections 301 and 402 of the CWA to releases of pollutants to groundwater. It contains the Agency's most comprehensive analysis of the CWA's text, structure, legislative history, and judicial decisions that has been lacking in prior Agency statements on this issue. EPA thus herein provides clear guidance that balances the statute, case law, and the need for clarity on the scope of the CWA NPDES coverage, which has been recently expanded by judicial decision to potentially reach a new set of releases to groundwater that EPA has not historically regulated in the NPDES program. This Interpretive Statement provides important clarity to inform future permitting decisions and other actions; it neither alters legal rights or obligations nor changes or creates law.

In February 2018, the Agency sought public comment on whether the NPDES permit program applies to releases of pollutants to groundwater and whether the Agency should revise or clarify its position on this issue. *See* 83 Fed. Reg. 7126, 7128 (Feb. 20, 2018). Informed by those comments and based on a holistic analysis of the statute, its text, structure, and legislative history, the Agency concludes that the best, if not the only, reading of the CWA is that Congress intentionally chose to exclude *all* releases of pollutants to groundwater from the NPDES program, even where pollutants are conveyed to jurisdictional surface waters via groundwater. Congress purposely structured the CWA to give states the responsibility to regulate such releases under state authorities. And, as discussed further below, other federal statutes contain explicit provisions that regulate the release of pollutants into groundwater to provide significant federal authority to address groundwater pollution not provided by the NPDES permitting program. In accordance with Congress's intent, state and federal authorities are collectively available to provide protection for ground and surface water quality in those instances where direct CWA permitting authority is not applicable.

During the pendency of EPA's review of the public comments received, two petitions for certiorari were filed with the Supreme Court which posed the question of whether the CWA applies to releases of pollutants from a point source to groundwater that migrates to surface water. *See* Petition for Writ of Certiorari, *Cty. of Maui v. Hawai'i Wildlife Fund. et al.* ("*County of Maui*"), No. 18-260 (Aug. 27, 2018); Petition for Writ of Certiorari, *Kinder Morgan Energy Partners, L.P. v. Upstate Forever* ("*Kinder Morgan*"), No 18-268 (Aug. 28, 2018). Consistent with the United States' recommendation set forth in an amicus brief filed at the Court's request, the Supreme Court recently granted the petition for writ certiorari in *County of Maui*, an appeal of the Ninth Circuit's broad reading of the CWA. *Cty. Of Maui*, No. 18-260 (S. Ct. cert granted

on Feb. 19, 2019). Issuing this statement provides necessary clarity on the Agency's interpretation of the statute given the mixed record of prior Agency statements and a split in the federal circuit courts regarding this issue.

The interpretation contained herein differs from the direct hydrological connection theory, expressed in the United States amicus brief filed in the Ninth Circuit *County of Maui* proceeding, and the theories advanced by the parties in that case. The Agency does not agree with the respondents' and Ninth Circuit's view that the CWA's NPDES requirements can apply when a pollutant released from a point source migrates to navigable waters through groundwater. The differences between the direct hydrological connection theory and today's interpretation, and EPA's explanation for why the Agency is modifying and clarifying its interpretation, are detailed below. While the Agency disagrees with the reasoning of the Ninth Circuit's decision in *County of Maui*, as well as the reasoning of the Fourth Circuit in its *Kinder Morgan* decision, for reasons discussed further below, it will nonetheless apply the decisions of those courts in their respective circuits until further clarification from the Supreme Court. *See Hawai'i Wildlife Fund v. Cty. Of Maui*, 886 F.3d. 737 (9th Cir. 2018); *Upstate Forever v. Kinder Morgan Energy Partners, L.P.*, 887 F.3d 637, 652 (4th Cir. 2018). Thus, the Agency's interpretation set forth herein applies at this time only outside of the Fourth and Ninth Circuits.[1]

I. Factual Background

[1] Neither the Ninth Circuit decision nor Fourth Circuit decision prohibits application of the Agency's interpretation expressed in this action in those circuits. *See National Cable Telecomms Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 982 (2005) ("A court's prior judicial construction of a statute trumps an agency construction otherwise entitled to Chevron deference only if the prior court decision holds that its construction follows from the unambiguous terms of the statute and thus leaves no room for agency discretion."). As explained herein, by not applying this interpretation in the Ninth and Fourth Circuits, the Agency is simply choosing to maintain the status quo pending further clarification by the Supreme Court, after which time the Agency intends to follow with notice and comment rulemaking.

It is a fundamental principle of hydrology that many groundwaters and surface waters are linked through the hydrologic cycle. As the Agency has previously explained, the "hydrologic cycle involves the continual movement of water between the earth and the atmosphere through evaporation and precipitation." EPA 440/6-90-004, *Citizen's Guide to Ground-Water Protection* (1990). Rain and snow fall to the earth, and the resulting water runs into surface waters, evaporates, is absorbed by plant roots, or infiltrates the ground's surface and moves downward to the saturated zone, "the area in which all interconnected spaces in rocks and soil are filled with water," also known as groundwater. *Id.* at 1. In areas where the saturated zone occurs at the ground's surface, groundwater discharges into surface waters, eventually evaporating into the atmosphere to form precipitation and begin the hydrologic cycle again. *Id.*

The nature of the connection between groundwater and surface water is highly dependent on local climate, topography, geology and the type of groundwater formation at issue. Because of the often-slow movement of groundwater, pollutants tend to remain concentrated in the form of a plume. The speed and concentration at which pollutants move through groundwater depend on the amount and type of pollutant, its solubility and density, and the speed of the surrounding groundwater. The amount of a pollutant that is released into groundwater that will eventually reach surface water also varies and is dependent on both the characteristics of the pollutant itself as well as site-specific factors. In addition, the travel time and distance between polluted groundwater and surface water can allow for the reduction of the impacts of contamination on the surface water due to natural processes. These processes include, for example, dilution, oxidation, biological degradation (which can render pollutants less toxic), and the binding of materials to soil particles such that pollutants are adsorbed by surrounding soil before reaching surface water.

Many commenters responding to EPA's February 2018 Federal Register notice identified activities that have not generally been required to obtain an NPDES permit and might be impacted if a permit were required for a release to groundwater with a hydrologic connection to jurisdictional surface waters. Activities listed by commenters included aquifer recharge, leaks from sewage collection systems, septic system discharges, treatment systems such as constructed wetlands, spills and accidental releases, manure management, and coal ash impoundment seepage.

Septic systems, for example, generally operate by discharging liquid effluent into perforated pipes buried in a leach field, chambers, or other special units designed to slowly release the effluent into soil. The soil accepts, treats, and disperses wastewater as it percolates through the soil, but can in certain circumstances ultimately enter groundwater. Over 26 million homes in the United States employ septic systems to treat and dispose of household waste. As the Agency has explained, "[r]ecycled water from a septic system can help replenish groundwater supplies; however, if the system is not working properly, it can contaminate nearby waterbodies." *See* EPA, *Septic Systems and Surface Water*, https://www.epa.gov/septic/septic-systems-and-surface-water. But even well-functioning septic systems can contribute pollutants such as nutrients to groundwater. In addition to household waste disposal, releases to groundwater are also employed as part of green infrastructure projects, including the management of stormwater. These projects release stormwater and recycled wastewater to the ground to recharge depleted aquifers and prevent or reduce runoff to surface waters. In arid western states experiencing low rainfall, states and municipalities use such surface infiltration of recycled wastewaters not only to replenish groundwater supplies, but also to mitigate salt water intrusion or abate land subsidence that can occur where groundwater is overly depleted.

To date, neither EPA nor states have generally required NPDES permits for these types of activities, and in the select instances where NPDES permits have been required for discharges from a point source that reach jurisdictional surface waters via groundwater, they have been based on site-specific factors.

II. The Clean Water Act

The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). In order to meet that objective, Congress declared two national goals: (1) "that the discharge of pollutants into the navigable waters be eliminated by 1985;" and (2) "that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983 . . . ." *Id.* § 1251(a)(1)-(2). The CWA approaches restoration and protection of the Nation's waters as a partnership between states and the federal government, assigning certain functions to each in striking the balance of the statute's overall regulatory scheme. Congress expressly recognized the role that states would continue to exercise in preventing, reducing, and eliminating pollution: "It is the policy of Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, reservation, and enhancement) of land and water resources[.]" *Id.* § 1251(b). As the Supreme Court has explained, the statute "anticipates a partnership between the States and the Federal Government," toward a shared objective of restoring and maintaining the integrity of the Nation's waters. *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992).

To accomplish the Act's broad national objective, Congress established respective roles for the federal government and for states. As one means of accomplishing the Act's objective,

Congress prohibited any "discharge of any pollutant" to "navigable waters" or to the "contiguous zone or the ocean" unless it is authorized by the statute, generally by a NPDES permit. 33 U.S.C. § 1311(a) ("Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful."). The Act defines navigable waters as "the waters of the United States, including the territorial seas." *Id.* § 1362(7). EPA's regulations have never defined "waters of the United States" to include groundwater.

The statute defines "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source" or "any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." 33 U.S.C. § 1362(12). A point source is defined as "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." *Id.* § 1362(14).

Where there is a discharge of a pollutant from a point source to a water of the United States, termed herein a jurisdictional surface water, NPDES permits generally require permittees to meet numeric or narrative effluent limitations. *Id.* §§ 1311(a), 1342(a). Effluent limitations are defined as "any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance." *Id.* § 1362(11).

Courts have observed that nonpoint source pollution—the broad category of other forms of water pollution that do not fall within the point source definition and not defined under the

Act—can be understood as "all water quality problems not subject to Section 402," the portion of the statute requiring NPDES permits. *Nat'l Wildlife Fed'n v. Gorsuch*, 693 F.2d 156, 166 (D.C. Cir. 1982). In addition to the NPDES permitting program, as another means of accomplishing the Act's objective, Congress reserved to states their exclusive role in regulating nonpoint source pollution. *Am. Farm Bureau Fed'n v. EPA*, 792 F.3d 281, 289 (3rd Cir. 2015) ("States in turn regulate nonpoint sources. There is significant input and oversight from the EPA, but it does not regulate nonpoint sources directly."); *see also Or. Natural Desert Ass'n v. U.S. Forest Serv.*, 550 F.3d 778, 780 (9th Cir. 2008) ("The CWA's disparate treatment of discharges from point sources and nonpoint sources is an organizational paradigm of the Act.").

While the point and nonpoint source distinction is the quintessential inquiry related to the discharge of pollutants to surface waters, as explained further below, this inquiry is not relevant as applied to groundwater. Rather, the text, structure, and legislative history of the CWA demonstrate Congress's intent to leave the regulation of groundwater wholly to the states under the Act. *See, e.g., Village of Oconomowoc Lake v. Dayton Hudson Corporation*, 24 F.3d 962, 965 (7th Cir. 1994) ("[T]he Clean Water Act does not attempt to assert national power to the fullest . . . . Congress elected to leave [regulation of groundwaters] to state law[.]"); *Tenn. Clean Water Network v. TVA*, 905 F.3d 436, 439 (6th Cir. 2018) ("[T]he CWA is restricted to regulation of pollutants discharged into navigable waters . . . leaving the states to regulate pollution of non-navigable waters" such as groundwater.).

III. EPA's Interpretation of the Clean Water Act National Pollutant Discharge Elimination System Program's Applicability to Releases of Pollutants to Groundwater that May Reach Jurisdictional Surface Waters

The CWA's definition of the "discharge of [a] pollutant," 33 U.S.C. § 1311(a), includes "any addition of any pollutant to navigable waters from any point source," 33 U.S.C. § 1362(12)(A). Because groundwater is not a "navigable water[]," *see* 33 U.S.C. § 1362(7), the CWA does not regulate discharges to groundwater as such. But the question of whether a "discharge" within the statute's meaning has occurred when a pollutant is released from a point source, travels through groundwater, and ultimately migrates to navigable waters has generated confusion and uncertainty.[2]

Commenters to EPA's February 2018 Federal Register notice rely primarily on one of two interpretive possibilities for addressing this question. One approach is reflected in the court of appeals' decisions in *County of Maui* and *Kinder Morgan*. In those cases, the courts interpreted Section 1362(12)(A) as applying to discharges from a point source to navigable waters where the pollutant has travelled to the navigable water over or through another medium. On this view, to qualify as a discharge "to navigable waters," a discharge via groundwater must, in the Ninth Circuit, be "fairly traceable" back to the point source and more than *de minimis*, *Cty. of Maui*, 886 F.3d at 746 n.2, and in the Fourth Circuit, "must be sufficiently connected to navigable waters," *Kinder Morgan*, 887 F.3d at 651. Those courts and commentators who have endorsed these variations on a similar approach have differed in describing the type of connection that qualifies under the CWA, but they generally agree that a "discharge of a

[2] This Interpretative Statement addresses the applicability of the CWA NPDES permitting requirements to the release of pollutants from a point source to groundwater that reach jurisdictional surface waters through hydrologically connected groundwater. It describes the movement of pollutants to and through groundwater as having been released from a point source. When the term "discharge" is used herein to reference pollutants being added to a surface water by or through groundwater, this does not connote or imply that a "discharge of a pollutant" or "discharge" has occurred under the CWA. *See* 33 U.S.C. §§ 1362(12) ("discharge of a pollutant"), 1362(16) ("discharge").

pollutant" may occur when a pollutant has been added to a navigable water via groundwater with some connection to the navigable water.

A second interpretive approach is reflected in the Sixth Circuit's decision in *Kentucky Waterways Alliance* v. *Kentucky Utilities Co.*, 905 F.3d 925 (6th Cir. 2018). In that case, the court read the relevant statutory language as applying only where pollution has been added *directly* to navigable waters "by virtue of a point-source conveyance," rather than through some other mechanism (such as groundwater). *Id.* at 934. Under this interpretation, sometimes described as the "terminal point source" theory, any intermediary between the point source and the navigable water means that a pollutant has not been discharged "to [the] navigable water[] from [the] point source."

EPA's interpretation differs from these two theories. The Agency's view is that the best, if not the only, reading of the statute is that all releases to groundwater are excluded from the scope of the NPDES program, even where pollutants are conveyed to jurisdictional surface waters via groundwater. This interpretation is appropriately tailored to releases to groundwater. On this view, because the CWA clearly evinces a purpose not to regulate groundwater, and because groundwater is extensively regulated under other statutory regimes, discussed further below in section VI.B, any circumstance in which a pollutant is released from a point source to groundwater is categorically excluded from the CWA's coverage. The interposition of groundwater between a point source and the navigable water thus may be said to break the causal chain between the two, or alternatively may be described as an intervening cause. Today's interpretation pertains to releases to groundwater and thus leaves in place the Agency's case-by-case approach to determining whether pollutant releases to jurisdictional surface waters that do not travel through groundwater require an NPDES permit. Whether a permit is required for such

a release is necessarily a fact-specific inquiry, informed by the point source definition and an analysis of intervening factors.

In the Agency's view, the text, structure, and legislative history of the CWA, as well as the better-reasoned judicial decisions, support the legal conclusion that Congress intended to exclude *all* releases of pollutants to groundwater from NPDES program coverage, regardless of a hydrologic connection or conveyance to jurisdictional surface water. When attempting to interpret a statute, a court or agency cannot look to one single word or phrase, but instead must look to the text as a whole. *See Star Athletica, LLC v. Varsity Brands, Inc.*, 137 S. Ct. 1002, 1010 (2017); *Dole v. United Steelworkers of Am.*, 494 U.S. 26, 35 (1990) ("[W]e are not guided by a single sentence or member of a sentence, but look to the provisions of the whole law, and to its object and policy."). While no single provision of the CWA expressly addresses whether pollutants discharged from a point source that reach jurisdictional surface waters through groundwater are subject to NPDES permitting requirements, when analyzing the statute in a holistic fashion, Congress's intent becomes evident: Congress did not intend for the NPDES program to address any pollutant discharges to groundwater, even where groundwater may be hydrologically connected to surface waters. Relevant legislative debate confirms that Congress fully understood the hydrologic connections that exist between groundwater and surface water, yet chose this jurisdictional line to strike the balance between state and federal responsibility for protection of the Nation's waters.

Congress was explicit where it intended the Act to apply to groundwater. It included references to groundwater in provisions aimed at providing information, guidance, and funding to states, to enable them to regulate pollutant discharges to groundwater. Explicit reference to groundwater, by contrast, is absent in the operative regulatory sections of the Act. Further,

Congress refers to groundwaters exclusively as one unified category of waters; the Act is devoid of any indication that Congress viewed releases of pollutants to groundwater as susceptible to different treatment under the Act based on the presence or absence of a connection to surface water. The legislative history is unambiguous that Congress was aware of the potential for releases to groundwater to reach surface water, and nonetheless rejected proposed amendments seeking to require NPDES permits for discharges to groundwater. As with nonpoint source pollution, the statute's structure and references to groundwater therein are reflective of Congress's intent to leave regulation of releases of pollutants to groundwater with the states.

A. The operative, enforceable provisions of the Clean Water Act that make up the NPDES permitting program neither reference nor contemplate releases to groundwater.

The foundational definitional terms and provisions that establish the NPDES program extend *only* to discharges of pollutants to navigable waters, waters of the contiguous zone, and the ocean, i.e., discharges to jurisdictional surface waters. The Act provides that a NPDES permit may be issued "for the discharge of any pollutant." 33 U.S.C. § 1342(a). The definition of discharge of a pollutant refers to "any addition of any pollutant to *navigable waters* from any point source," or "any addition of any pollutant to the *waters of the contiguous zone or the ocean* from any point source." *Id.* § 1362(12) (emphasis added). The Act thus explicitly refers to the addition of any pollutant to three of the four categories of waters referred to throughout the statute; the addition of any pollutant to groundwater—the fourth category—is notably absent. Congress specified which sections of the Act applied to which categories of waters: groundwater, navigable waters, contiguous zone waters, and the ocean. *See, e.g., id.* § 1254(a)(5) (setting forth provisions aimed at monitoring the quality of "the navigable waters and ground waters and the

contiguous zone and the oceans"); § 1314(a)(2) (requiring that the Administrator shall publish information on the "factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans"). In other words, "when Congress wanted certain provisions of the CWA to apply to groundwater, it stated so explicitly." *Umatilla Waterquality Protective Ass'n. v. Smith Frozen Foods*, 962 F. Supp. 1312, 1318 (D. Or. 1997).

Congress also elected to leave groundwater out of the definition of "effluent limitations" and related provisions. Effluent limitations are defined as "any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources *into navigable waters, the waters of the contiguous zone, or the ocean*, including schedules of compliance." 33 U.S.C. § 1362(11) (emphasis added). Similarly, section 304(g), establishing the requirement that EPA publish certain guidelines to assist states in implementing their NPDES program, provides that these guidelines will apply to control discharges to every form of water *except* groundwater. *See id.* § 1314(g) (providing that, for the purposes of assisting states in carrying out NPDES programs, EPA shall publish guidelines "to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean").

The absence of groundwater in the sections of the statute foundational to the NPDES permitting program is meaningful: "[a] familiar principle of statutory construction . . . is that a negative inference may be drawn from the exclusion of language from one statutory provision that is included in other provisions of the same statute." *Hamdan v. Rumsfeld*, 548 U.S. 557, 578 (2006). Here, Congress elected not to include groundwater in the definition of "discharge of a pollutant"—the critical definition in determining whether a NPDES permit is required—nor did

Congress include groundwater in the definition of "effluent limitations," a primary vehicle in implementing the NPDES permitting requirement. *See Umatilla*, 962 F. Supp. at 1318 ("[T]hroughout the CWA, Congress appeared to have four categories of waters in mind—'navigable waters,' the contiguous zone, the ocean, and 'ground waters.' Only the first three of these . . . are included within the definition of 'discharge of a pollutant,' indicating that Congress did *not* consider discharges to groundwater to be discharges that would trigger the NPDES requirement.").

Congress's intent to deliberately leave groundwater out of the definition of "discharge of a pollutant" is confirmed by the legislative history of the Act. In a hearing before the House Public Works Committee, Representative Leslie Aspin recommended that the term "ground water" be added to the operative NPDES provisions so that discharges to groundwater also would be covered by the statute, explaining that "[s]ometimes a navigable water and ground-water source run into each other, or come close to each other, so that seepage from polluted ground-water source could pollute the navigable water[;] . . . [t]o say that the Federal Government can regulate the ecology of one, but not the other, is silly and counterproductive." Water Pollution Control Legislation–1971 (Proposed Amendments to Existing Legislation): Hearings before the H. Comm. on Pub. Works, 92nd Cong. 793 (1971) (remarks of Rep. Aspin) (emphasis added).

Representative Aspin went on to propose an amendment to regulate groundwater under the NPDES program by amending Title IV of the statute to include explicit references to groundwater and adding the term "ground waters" to the definition of "discharge of pollutant" found in Section 502(12). He explained that these amendments were necessary given the likelihood that polluted groundwater would contaminate jurisdictional surface waters:

> The amendment brings ground water into the subject of the bill, into the enforcement of the bill. Ground water appears in this bill in every section, in every title except title IV. It is under the title which provides EPA can study ground water. It is under the title dealing with definitions. But when it comes to enforcement, title IV, the section on permits and licenses, then ground water is suddenly missing. That is a glaring inconsistency which has no point. If we do not stop pollution of ground waters through seepage and other means, *ground water gets into navigable waters*, and to control only the navigable water and not the ground water makes no sense at all.

118 Cong. Rec. 10.666 (1972), 1 Leg. Hist. 589 (remarks of Rep. Aspin) (emphasis added). The amendments were rejected by a vote of 86 to 34. *Id.* at 597. The failure of a proposed amendment "strongly militates against a judgment that Congress intended a result that it expressly declined to enact." *Gulf Oil Corp. v. Copp Paying Co.*, 419 U.S. 186, 200 (1974).

The only section in the extensive NPDES permitting provisions where discharges to groundwater are contemplated is section 402(b)(1)(D), which sets forth the requirements for EPA approval of state programs to assume NPDES authority. This section requires that to approve a state-submitted NPDES program, the Administrator must determine that adequate authority exists *within the state* to "control the disposal of pollutants into wells." 33 U.S.C. § 1342(b)(1)(D). The Fifth Circuit found this provision significant in rejecting EPA's prior view that it had authority to regulate groundwater pollution resulting from deep-well disposal, observing that "[t]he simple requirement of § 402(b)(1)(D) that *state* permit programs have adequate authority to issue permits which control the disposal of pollutants into wells, which is not fleshed out elsewhere in the Act or mirrored in any of the sections setting forth the

Administrator's powers, is entirely consistent" with Congress's intention to "stop short of establishing federal controls over groundwater pollution." *Exxon Corp. v. Train*, 554 F.2d 1310, 1324 (5th Cir. 1977).

The legislative history of 402(b)(1)(D) illuminates Congress's intent in the CWA to require states, but not the federal government, to regulate deep well disposal, which is consistent with its intent to leave regulation of *all* pollutant discharges to groundwater to states. The Senate Committee on Public Works report explains that, like the House, the Senate Committee rejected amendments to impose federal regulation over groundwater but included the provision in section 402(b)(1)(D) requiring states to maintain programs to regulate deep well disposal to encourage states to carry out such regulation. Specifically, the report explained that:

> Several bills pending before the Committee provided authority to establish Federally approved standards for groundwaters which permeate rock, soil, and other subsurface formations. Because the jurisdiction regarding groundwaters is so complex and varied from State to State, the Committee did not adopt this recommendation.
>
> The Committee recognizes the essential link between ground and surface waters and the artificial nature of any distinction. *Thus the Committee bill requires in section 402 that each State include in its program for approval under section 402 affirmative controls over the injection or placement in wells of any pollutants that may affect ground water.* This is designed to protect ground waters and eliminate the use of deep well disposal as an uncontrolled alternative to toxic and pollution control.

> The importance of groundwater in the hydrological cycle cannot be underestimated. Although only about 21.5 percent of our domestic, industrial[,] [and] agricultural supply comes directly from wells, it must be remembered that rivers, streams and lakes themselves are largely supplied with water from the ground—not surface runoff.

S. Rep. No. 414, 92d Cong., 1st. Sess. at 73 (1971), 2 Legislative History of the Water Pollution Control Act Amendments of 1972, at 1491 (emphasis added); *see also* 118 Cong. Rec. 10667 (1972), 1 Leg. Hist. 591 (remarks of Rep. Clausen) (opposing amendment to require NPDES permits for discharges to groundwater and stating that the House committee had "recognized the need for control of disposal of pollutants into wells in order to protect our ground waters. Therefore, in section 402(b)(1)(D) we provided that the Administrator shall approve a State program unless he determines that authority does not exist to control the disposal of pollutants into wells.").

The legislative history makes evident that Congress declined to extend coverage of the NPDES program to discharges to groundwater and did so with the understanding that releases of pollutants to groundwater often reached jurisdictional surface water and could affect its quality. For example, at a 1971 hearing before the Senate Public Works Committee, then EPA Administrator William Ruckelshaus requested that EPA be granted authority to regulate groundwater quality, explaining the basis for that request as follows:

> The only reason for the request for Federal authority over ground waters was to assure that we have control over the water table in such a way as to insure that our authority over interstate and navigable streams cannot be circumvented, so we can

obtain water quality by maintaining a control over all the sources of pollution, be they discharged directly into any stream or *through the ground water table*.

Water Pollution Control Legislation–1971 (Proposed Amendments to Existing Legislation): Hearings before the H. Comm. on Pub. Works, 92nd Cong. 230 (1971) (statement of Hon. William Ruckelshaus, Administrator, EPA) (emphasis added). This statement, before the same Senate Committee that rejected amendments to extend the scope of the NPDES program at the time of the passage of the Act, supports the conclusion that Congress was aware that contaminated groundwater could reach jurisdictional surface waters and nonetheless chose to leave releases to groundwater to state regulation in the CWA paradigm. As the Fifth Circuit observed in analyzing this legislative history, throughout the ensuing debate "there is not the slightest hint that any Member thought the bill would grant the Administrator any power to regulate deep-well disposal or *any other form of groundwater pollution*. Instead, all the evidence points to precisely the opposite understanding." *Exxon*, 554 F.2d at 1329; *see also Kelley on behalf of Michigan v. United States*, 618 F. Supp. 1103, 1107 (W.D. Mich. 1985) (acknowledging the "unmistakably clear legislative history . . . demonstrat[ing] that Congress did not intend the Clean Water Act to extend federal regulatory and enforcement authority over groundwater contamination").

B. Explicit references to groundwater are found in sections of the Act that serve to provide information, guidance, assistance, or funding to states in regulating groundwater, and in sections of the Act addressing state programs to control nonpoint source pollution.

The Act's provisions explicitly addressing groundwater can be placed into two groups. Analysis of these two groups of statutory references reinforces Congress's intent to leave

regulation of groundwater—no matter how hydrologically connected to surface water—to the states. First, the Act contains forward-looking sections aimed at gathering information that could inform subsequent legislation and current state efforts to regulate discharges to groundwater. Indeed, "a clear pattern of congressional intent with respect to groundwaters emerges upon close examination of those sections of the Act that deal with the subject. That pattern is one of information gathering and encouragement of state efforts to control groundwater pollution—but not of direct federal control over groundwater pollution." *See Exxon*, 554 F.2d at 1322. Second, the Act contains sections addressing state programs to manage nonpoint source pollution, evidencing Congress's intent to retain states' lead role with respect to both nonpoint source and groundwater pollution. The provisions described below are reflective of Congress's intent that states retain responsibility for addressing groundwater pollution, and that the federal government's role would be to provide resources, both in the form of information, funding or other support, for states to take on this issue. These resources and incentives for state programs, like the NPDES program, are an important component of the CWA, but one in which states retain regulatory decision-making and authority and elect to what extent they chose to utilize federal support.

Groundwater is first mentioned in the statute in Title I, setting forth "Research and Related Programs." This Title contains several provisions directing EPA to address groundwater pollution through information gathering and coordination with states, as opposed to through binding regulatory requirements found elsewhere in the Act. *See, e.g.*, 33 U.S.C. §§ 1252, 1254. During the debate on the amendment to regulate discharges to groundwater through the NPDES program, Representative Donald H. Clausen, a member of the House Committee on Public Works and sponsor of the House bill, noted in explaining his opposition to the amendment that

"it was determined by the committee that there was not sufficient information on ground waters to justify the types of controls that are required for navigable waters." 118 Cong. Rec. 10667 (1972), 1 Leg. Hist. 591 (remarks of Rep. Clausen). He explained that the Committee recognized the need for additional information and research "both in determining the effect of underground disposal of pollutants and the migration of such pollutions." *Id.* Thus, the Committee drafted "broad research" powers for EPA under Title I of the statute, and, based on that research, *in the future*, "Congress might have a basis for determining the need and appropriately extending the controls of H.R. 11896 as they apply to navigable waters to ground waters if needed." *Id.*

Congress also included non-regulatory provisions focused on the protection of groundwater in Title II of the Act, in which Congress authorized EPA to make grants to states for the construction of publicly owned treatment works (POTWs). Of relevance here, Congress included a provision in section 202 authorizing increased funding for construction of POTWs if states provide a certificate indicating that the quantity of available groundwater will be "insufficient, inadequate, or unsuitable for public use, including the ecological preservation and recreational use of surface water bodies," unless effluents from POTWs, after adequate treatment, are returned to the groundwater. 33 U.S.C. § 1282(b)(2). This is an example of "Congress employ[ing] the power of the federal purse to encourage protection by the states of underground waters." *Exxon*, 554 F.2d at 1323. Notably, this provision also links the quantity of available groundwater to "ecological preservation and recreational use of surface water bodies," 33 U.S.C. § 1282(b)(2), indicating Congress's decision to explicitly acknowledge and account for the connection between groundwater and jurisdictional surface waters when it chose to do so.

Title III of the CWA, "Standards and Enforcement," also contains several provisions related to groundwater, each of which set forth non-regulatory information gathering requirements and provisions for guidance or funding to states. Section 304(a)(1) of the statute requires that the Administrator develop and publish water quality criteria, on, in pertinent part, the kind and extent of identifiable effects on health and welfare "which may be expected from the presence of pollutants in any body of water, including ground water." 33 U.S.C. § 1314(a)(1). Section 304(a)(2) requires that the Administrator develop and publish information on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters and ground waters. *Id.* § 1314(a)(2). Neither Section 304(a)(1) nor section 304(a)(2), however, create compliance obligations for individual dischargers. *E. I. Du Pont de Nemours & Co. v. Train*, 430 U.S. 112, 119 n.6 (1977) ("There is no provision for compliance with § 304, the guideline section."). Rather, EPA's role in executing Section 1314(a) is to provide guidance to states. *City of Albuquerque v. Browner*, 865 F. Supp. 733, 738 (D. N.M. 1993) ("Section 304(a) of the Act requires EPA to develop criteria for water quality that reflect the latest scientific knowledge, and to provide those criteria to the States as guidance."). As the Fifth Circuit observed, "the absence of other provisions in the Act . . . for transforming this information into enforceable limitations, strongly suggests that Congress meant to stop short of establishing federal controls over groundwater pollution, at least for the time being." *Exxon*, 554 F.2d at 1325.

These provisions providing for support to states to regulate groundwater arise in the context of general informational support to states (sections 102, 104, and 304) and funding tied to protection of groundwater related to discharges from a specific type of facility (section 202). 33 U.S.C. §§ 1252, 1254, 1282, 1314. Significantly, Congress also explicitly included

groundwater in provisions addressing states' programs for control of nonpoint source pollution. These provisions, including sections 208, 304(f), and 319, together make up the portions of the Act in which Congress addressed nonpoint source pollution—not through regulatory requirements, but through support for state programs. *Id.* §§ 1288, 1314(f), 1329.

Section 208 of the statute is an example of a provision where Congress was concerned about nonpoint source pollution impacting groundwater, which it was aware could also reach surface water. That section requires that states submit to EPA "areawide waste treatment management plans," which must include a process to control the disposal of pollutants on land or in subsurface excavation to "protect *both* ground and surface water quality." *Id.* § 1288(a), (b)(2)(K) (emphasis added). The statute provides that areawide waste treatment management plans shall include a process to identify mine-related sources of pollution, such as surface and underground mine runoff, and the plans must also set forth procedures and methods to control those sources of runoff. *Id.* § 1288(a), (b)(2)(G). Thus, Congress viewed underground mine runoff, *i.e.*, seepage to groundwater that could reach jurisdictional surface waters, as best dealt with for CWA purposes through an areawide waste treatment management plan for controlling nonpoint source pollution, rather than through the regulatory program under NPDES. *See also id.* § 1314(f) (directing the Agency to issue guidelines for identifying and evaluating types of nonpoint sources of pollutants, including "the disposal of pollutants in wells or in subsurface excavations").

Congress's intent to treat releases to groundwater as analogous to nonpoint sources, subject to control by states, is further evidenced by analyzing section 319 of the statute, entitled "Nonpoint source management programs." Section 319 was added to the statute in 1987 and includes requirements and related funding provisions directed at states to control pollution from

nonpoint sources to navigable waters. *Id.* § 1329 (codifying Water Quality Act of 1987, Pub. L. No. 100-4, § 319, 100 Stat. 7, 52). Section 319 authorizes the Administrator to give priority in making grants where States have implemented or are proposing to implement programs to "carry out ground water quality protection activities which the Administrator determines are part of a comprehensive nonpoint source pollution control program." *Id.* § 1329(h)(5)(D). In addition, section 319 contains a groundwater-specific grant provision in 319(i), "Grants for Protecting Groundwater Quality," for the purpose of assisting states in "carrying out groundwater quality protection activities" that will "advance the State toward implementation of a comprehensive nonpoint source pollution control program." *Id.* § 1329(i)(1). Activities that could be supported by the grants include activities "to protect the quality of groundwater *and* to prevent contamination of groundwater from nonpoint sources of pollution." *Id.* (emphasis added). This and the other provisions discussed in this section, aimed at equipping states with information and funding needed to enact programs to protect groundwater quality, stand in contrast to the sections of the statute, discussed above, that set forth enforceable limitations as well as the NPDES permitting and related provisions and contain no explicit mention of groundwater.

IV. Comments Regarding Prior Agency Statements

The Agency has for the first time conducted a public process, initiated by EPA's February 2018 Federal Register notice, regarding prior Agency statements addressing this issue, and, in conjunction with that process, has conducted a more-substantial review of its prior statements than previously undertaken by the Agency. As the Agency stated in that notice, "most of these statements were collateral to the central focus of a rulemaking or adjudication." 83 Fed. Reg. at 7127. In fact, most of these statements do not include any explanation for the Agency's previous interpretation of the Act. As described above, EPA is now clearly stating its

position on this issue in a comprehensive manner that is consistent with the text and legislative history of the CWA.

As commenters pointed out, there have been a range of prior statements by the Agency that align with the legal position articulated in this Interpretive Statement. For example, in a number of documents discussed below, the Agency has stated simply that discharges to groundwater are not subject to the CWA, without any qualification. The Agency has reexamined these statements in light of what the Agency views as the more appropriate legal question at issue here—whether the CWA categorically excludes releases of pollutants to groundwater from coverage under the Act—without drawing a distinction between isolated groundwater and groundwater with a direct hydrologic connection to jurisdictional surface waters. Viewed through this legal lens, the statements discussed below in section (A) are highly relevant, and supportive of the interpretation of the statute explained in this Interpretive Statement.

A selection of these prior statements identified by commenters are summarized below. Many commenters observed that lack of consistent and comprehensive direction from EPA on this issue has led to inconsistent interpretation across the country and has created uncertainty for regulated entities and the public. Even where the Agency stated an interpretation, the Agency has not issued regulations or guidance focused clearly on this issue. Thus, courts have attempted to fill this void, but have issued conflicting decisions about whether these releases are covered by the CWA. EPA's adoption of a precise position on this issue and thorough explanation of the reasons why the Agency's position is the best, if not the only, reading of the CWA will provide certainty to EPA staff, state permitting authorities, and regulated entities as to how EPA interprets the statute.

A. Commenters' Citation of Examples of Prior Agency Statements Indicating Discharges to Groundwater are Outside the Scope of the NPDES Program

In addressing EPA's request for comment on potential clarification of the Agency's prior statements, commenters pointed to certain instances in which the Agency stated that discharges to groundwater are not subject to the CWA, without any qualification. For example, in a 1973 EPA Office of General Counsel memorandum, EPA considered whether certain discharges to wells are subject to the NPDES program and stated that "[u]nder § 502(12) the term 'discharge of a pollutant' is defined so as to include only discharges into navigable waters (or the contiguous zone or the ocean). Discharges into ground waters are not included." Memorandum from the U.S. EPA Acting Deputy Gen. Counsel to the U.S. EPA Region IX Reg'l Counsel 2-3 (Dec. 13, 1973). The Agency did not include any language indicating that, at that time, it viewed groundwaters as distinguishable based on their connection to jurisdictional surface waters. Notably, this memorandum was issued close-in-time to the passage of the CWA amendments creating the NPDES program and reflects the Agency's initial view of the statute's text, which has not been amended in pertinent part since that time. *See also Ground Water Pollution from Subsurface Excavations*, EPA-430/9-73-012 at 131-35 (1973) (EPA report explaining that subsurface excavations, e.g., lagoons, pits, basins, etc., used to store or dispose of pollutants can contaminate groundwater and that contamination can reach surface waters, without mentioning regulation under NPDES as one of several identified methods to address this contamination).

Commenters also pointed out that, in its brief in *Kelley on behalf of Michigan v. United States*, the United States argued that discharges to groundwater, *per se*, are excluded from the CWA, and applied that view to discharges to groundwater with a direct hydrologic connection to jurisdictional surface waters. 618 F. Supp. 1103 (W.D. Mich. 1985). In that case, Michigan

alleged that certain toxic chemicals were released into the ground at a U.S. Coast Guard facility, that the chemicals contaminated the groundwater underlying the facility, and that the plume of contamination migrated and was discharged to a jurisdictional surface water. In its brief, the United States argued that "Michigan cannot make these claims under the Clean Water Act since the Act does not regulate pollutant discharges onto soil or into underlying ground water." U.S. Mem. In Supp. of Rule 12(b) Mot. & In The Alternative for Summ. J. at 5, *Kelley on behalf of Michigan v. United States*, No. G83-630, 618 F. Supp. 1103 (W.D. Mich. 1985).

Commenters also pointed to a policy document issued during the Clinton administration which explicitly stated that it was unclear whether the CWA regulated discharges to groundwater with a direct hydrologic connection to jurisdictional surface water. President Clinton's Clean Water Initiative sought to update the CWA and stated that it was "presently unclear whether a discharge to the ground or to ground water that rapidly moves into surface water through a 'direct hydrologic connection' between the point of discharge and the surface water is subject to NPDES regulation." *President Clinton's Clean Water Initiative* at 104, EPA 800-R-94-001 (Feb. 1994). To address this, EPA suggested that the "CWA should be amended to . . . [c]onfirm and clarify that a point source discharge to ground or to ground water that has a direct hydrological connection with surface waters is subject to regulation as a NPDES point source discharge . . . ." *Id.* at 105; *see also* EPA 100-R-93-001 at 1-27, *Final Comprehensive State Ground Water Protection Guidance* (Dec. 1992) (stating that "[w]hile a number of States have incorporated ground water discharges into their NPDES permits and pretreatment requirements, there is no national requirement to do so").

Commenters also cited to instances in permitting proceedings where EPA indicated that NPDES permits are not required for discharges to groundwater, without also referring to the

direct hydrologic connection theory. In a response to comments document on an NPDES pesticide general permit, EPA explained that one commenter requested that the permit ensure that discharges do not affect groundwater. EPA, *Response to Public Comments, EPA NPDES Pesticide General Permit* at xxii (Oct. 31, 2011). EPA responded and clarified that "the Clean Water Act's NPDES program, under which EPA issued the [pesticide general permit], is for the control of discharges to waters of the United States. Generally, discharges to groundwater are not regulated under the NPDES program; rather, discharges to groundwater are regulated under Safe Drinking Water Act along with any additional protections that may be incorporated in FIFRA regulations." *Id.* EPA did not qualify this statement with any discussion of discharges to groundwater with a direct hydrologic connection to surface water. *See also* EPA, Fact Sheet, Draft General Permits for Stormwater Discharges Systems from Small Municipal Separate Sewer Systems in Massachusetts at 18 (Sept. 30, 2014) ("NPDES permits are applicable for point source discharges to waters of the U.S.; discharges to groundwater are not addressed in the NPDES program and as such are not addressed by this permit.").

Finally, commenters also noted that EPA has not comprehensively explained its previous interpretation in a key document that permit writers and regulated entities frequently look to for guidance on the NPDES program. EPA's NPDES Permit Writers' Manual (NPDES Manual) describes the statutory and regulatory framework of the NPDES program and examines technical considerations for developing NPDES permits. U.S. EPA, NPDES Permit Writers' Manual vii (2010). While the NPDES Manual is designed as a comprehensive reference on the program for permit writers, it only briefly mentions EPA's prior interpretation:

> The CWA does not give EPA the authority to regulate ground water quality through NPDES permits. If a discharge of pollutants to ground water reaches waters of the

United States, however, it could be a discharge to the surface water (albeit indirectly via a direct hydrological connection, i.e., the ground water) that needs an NPDES permit.

Id. at 1-7. The NPDES Manual does not elaborate on this statement or provide guidance on how this interpretation should be implemented.

B. Commenters' Citation of Examples of Prior Agency Statements Indicating Discharges to Groundwater with a Direct Hydrologic Connection to Surface Water are Subject to NPDES Requirements

As described in the February 2018 Federal Register notice soliciting public comment on this issue, EPA has articulated its previous position that discharges to groundwater with a direct hydrologic connection to jurisdictional surface waters are subject to the CWA. 83 Fed. Reg. at 7127 ("EPA has previously stated that pollutants discharged from point sources that reach jurisdictional surface waters via groundwater or other subsurface flow that has a direct hydrologic connection to the jurisdictional water may be subject to CWA permitting requirements."). Commenters noted that the Agency has, in several public documents, including rulemakings, permits, letters, and briefs filed on EPA's behalf by the Department of Justice, indicated that NPDES permits are required for discharges to groundwater that have a direct hydrologic connection to jurisdictional surface waters. *See, e.g.*, *id.* (listing Agency statements in several rulemaking preambles); Federal Appellees' Response Brief at 48, *Greater Yellowstone Coal. v. Lewis*, No. 09-35729, 628 F.3d 1143 (9th Cir. 2010) ("Groundwater is not directly regulated by the Clean Water Act . . . . Nonetheless, EPA has consistently interpreted the Act to cover discharges into groundwater that have a direct hydrologic connection to surface water."); Final General NPDES Permit for Concentrated Animal Feeding Operations (CAFO) in Idaho ID-

G-01-0000, 62 Fed. Reg. 20,178 (1997) ("[T]he Clean Water Act does not give EPA the authority to regulate groundwater quality through NPDES permits. The only situation in which groundwater may be affected by the NPDES program is when a discharge of pollutants to surface waters can be proven to be via groundwater . . . the permit requirements . . . are intended to protect surface waters which are contaminated via a groundwater (subsurface) connection."); EPA, Memorandum from Director, Office of Solid Waste to Waste Management Division Directors (1995) ("In addition, such groundwater discharges are subject to CWA jurisdiction, based on EPA's interpretation that discharges from point sources through groundwater where there is a direct hydrologic connection to nearby surface waters of the United States are subject to the prohibition against unpermitted discharges, and thus are subject to the NPDES permitting requirements."); EPA, *In the Matter of Bethlehem Steel Corp*, UIC Appeal Nos. 85-8 & 86-13 (1989) (EPA "declines to exercise CWA jurisdiction over injection wells (except those that inject into ground water with a physically and temporally direct hydrologic connection to surface water)."). However, each of these statements is included in preambles to rules or in permits where the complex jurisdictional issue of releases of pollutants to groundwater were not the central focus. In other words, these statements were collateral to the central issues addressed in the documents in which they are included.

Commenters highlighted one preamble—to a proposed rule that applied to only one category of dischargers—in which EPA discussed its prior interpretation in some detail. In a proposed rule revising the NPDES permit requirements and effluent limitation guidelines for CAFOs, EPA proposed national requirements for certain CAFOs to address potential discharges to jurisdictional surface waters via groundwater that has a direct hydrologic connection to jurisdictional surface waters. 66 Fed. Reg. 2960 (Jan. 12, 2001). In the preamble to this

proposed rule, EPA explained its interpretation of the Act as applying to these types of discharges. *Id.* at 3015-20. Notably, EPA did not engage in a detailed analysis of the Act's text, structure, and legislative history in the 2001 preamble that has now led the Agency to the position articulated in this Interpretive Statement. Moreover, EPA *did not finalize* these proposed requirements for certain CAFOs and explained in the preamble to the final rule that "the factors affecting whether such discharges are occurring . . . are so variable from site to site that a national technology-based standard is inappropriate." 68 Fed. Reg. 7176, 7216 (Feb. 12, 2003).[3]

C. Rationale for the Agency's Rejection of Commenters' Alternative Interpretations of the CWA

Commenters to EPA's February 2018 Federal Register notice offered extensive legal arguments both supporting the Agency's previous direct hydrologic connection theory, and as a basis for rejecting that theory. Some commenters recommending the Agency retain the direct hydrologic connection theory cited to the purpose of the statute and the definition of "discharge of a pollutant" as requiring that the Agency construe the statute as covering releases of pollutants to groundwater that reach jurisdictional surface waters through a direct hydrologic connection. They argued that the definition of "discharge of a pollutant" is broad, and asks only whether the pollutant travels from a point source to a jurisdictional surface water; if so, a NPDES permit is required. Commenters in favor of the Agency's rejection of the direct hydrologic connection theory asserted that the theory is atextual and inconsistent with the overall statutory scheme and legislative history of the Act. Some of these commenters offered an alternative theory of

[3] In reviewing this regulation, the Second Circuit did note that NPDES authorities still had the power to impose groundwater related requirements on a case-by-case basis. *Waterkeeper Alliance v. EPA*, 399 F.3d 486, 514 & n. 26, 515 (2d Cir. 2005).

jurisdiction that limits the scope of the CWA to discharges of a pollutant from a point source or series of point sources that carry the pollutant directly into the water of the United States. In other words, they asserted that pollution must pass through an unbroken chain of point sources for a "discharge of a pollutant" to have occurred, sometimes referred to as the "terminal point source" theory. The Agency's position articulated herein differs from both the direct hydrologic connection theory and the terminal point source theory, as explained below. EPA believes its reading of the statute—which is based on the statute as a whole and not a single definition viewed in isolation—is most consistent with Congress's intent. It is also carefully tailored to the specific issue of releases of pollutants to groundwater which has generated confusion among courts, states, regulated entities, and the public.

Many environmental organizations that commented on EPA's February 2018 Federal Register notice urged the Agency to retain the direct hydrologic connection theory articulated in prior Agency statements. The Agency notes that it is maintaining several elements of that position—that groundwater is not a water of the United States and that groundwater is not a point source. The Agency's brief before the Ninth Circuit in the *County of Maui* proceeding stated that it "[did] not contend that groundwater is a point source, nor [did it] contend that groundwater is a water of the United States regulated by the Clean Water Act." Brief for the United States as Amicus Curiae at 2, *Cty. Of Maui*, No. 15-17447, 886 F.3d. 737.

EPA's interpretation here departs from the position the Agency took in the *County of Maui* amicus brief on the application of the definition of "discharge of a pollutant" to releases of pollutants into groundwater. The amicus brief, as well as the commenters urging the Agency to retain the direct hydrologic connection theory, failed to take into account Congress's unique treatment of groundwater in the CWA when interpreting the definition of discharge of a

pollutant. The Agency's previous interpretation that a release of a pollutant from a point source to groundwater that is conveyed to jurisdictional surface waters could be the functional equivalent of a release to jurisdictional surface waters thus was premised on viewing releases of pollutants to groundwater through the NPDES point source paradigm rather than viewing such releases in light of Congress's specific approach to groundwater under the CWA.

In arguing that the direct hydrologic connection theory is consistent with the Act, the Agency's *County of Maui* amicus brief, like some commenters, recognized that Congress drew a line between regulation of discharges to groundwater and regulation of discharges to jurisdictional surface water. EPA's amicus brief asserted that *Maui* "emphatically is not a case about the regulation of groundwater" and "[i]nstead it is about the regulation of discharges of pollutants to waters of the United States." Brief for the United States as Amicus Curiae at 21. However, this approach takes insufficient account of the explicit treatment of groundwater under the CWA, as reflected in the statute's text, structure, and legislative history. In the Agency's view, releases to groundwater should not be distinguished based on the connection (or lack thereof) between groundwater and jurisdictional surface waters. The text, a holistic analysis of the statute, and the legislative history indicate that Congress's intent was to categorically exclude groundwater from coverage of the permitting provisions of the Act and to leave regulation of groundwater to the states, irrespective of the type of groundwater formation and whether it allows for discharge to jurisdictional surface waters or the directness of such a conveyance. The direct hydrologic connection theory upsets the careful balance that Congress struck between the states and the federal government by pushing a category of pollutant discharges from the state-regulated paradigm to the point source, federally controlled, program.

The *County of Maui* amicus brief, and some commenters urging that EPA retain the direct hydrologic connection theory, also erred by improperly equating releases of pollutants to groundwater with releases of pollutants from a point source to surface water that occur above ground. The statute and its legislative history indicate that Congress intended for all discharges to groundwater to be left to state regulation and control, ending any potential for federal permitting obligations once the pollutant enters groundwater, regardless of any future contribution of any modicum of pollutants to jurisdictional surface waters. Thus, the statute does not support analogizing pollutants discharged from a point source to groundwater that migrate to jurisdictional surface water to "discharges of pollutant[s] [that] have moved from a point source to navigable waters over the surface of the ground or by some other means." Brief for the United States as Amicus Curiae at 14, *Cty. Of Maui*, No. 15-17447, 886 F.3d. 737.

As the Act's legislative history in particular demonstrates, Congress recognized the complex and highly-localized nature of releases to groundwater, that additional research and understanding of the interactions between surface and groundwater are needed, and determined that states, rather than EPA, are best positioned to regulate such releases. Today's interpretation pertains to releases to groundwater and thus leaves in place the Agency's case-by-case approach to determining whether pollutant releases to jurisdictional surface waters that do not travel through groundwater require an NPDES permit. Whether a permit is required for such a release is necessarily a fact-specific inquiry, informed by the point source definition and an analysis of intervening factors. EPA and authorized states have exercised that judgment on a case-by-case basis.[4] It is unnecessary to posit a categorical rule with respect to fact patterns such as those

[4] For example, in the 2012 criminal case against Robert Armstrong and RCA Oil and Gas LLC, the indictment states that the defendant "using a backhoe, breached the wall of the reservoir causing the wastewater to flow into Rockcamp Run." *United States v. Armstrong*, No. 2:12-cr-

described in footnote 4 in this Interpretive Statement because, as explained above, the statute categorically excludes releases to and from groundwater from the permitting requirements of the Act irrespective of the directness of the hydrological connection.[5]

Finally, the *County of Maui* amicus brief and some commenters improperly rely on the broad goal of the Act to justify applying the definition of "discharge of a pollutant"—which

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243, ECF-1, at *4 (S.D. Ohio 2013). In the 2012 criminal case against Chamness Technology Inc., Attachment A to the Plea Agreement states that a hose from a lagoon to a rotating water irrigator became unhooked and was observed "discharging dark, foamy, and odiferous liquid into a wooded draw which flowed downward into the Palestine Creek." *United States v. Chamness Tech., Inc.*, No. 4:14-cr-149, ECF-8-1, at *2 (S.D. Iowa 2013). In the 2014 criminal case against Freedom Industries, the Stipulation of Facts in the Plea Agreement states that the chemical at issue leaked from a tank, "breached containment, including a dike wall, ran down the riverbank and discharged into the Elk River at two discernible, confined and discrete channels or fissures." *United States v. Freedom Industries, Inc.*, No. 2:14-cr-275, ECF-9, at *23-*24 (S.D. W.Va. 2016). EPA's regulations for concentrated animal feeding operations (CAFOs) prohibit discharges from manure storage lagoons unless the lagoon is properly designed and the discharge is the result of a 24-hour, 25-year storm. *See* 40 C.F.R. Part 412. EPA has taken action against CAFOs with discharges that do not satisfy these requirements. *See United States v. Meadowvale Dairy*, No. 5:16-cv-4016, ECF-2, at *10 (N.D. Iowa 2017) (Complaint alleging that an "inspection at Meadowvale North . . . observed manure laden process wastewater flowing from the northern portion of [the basin] into Unnamed Tributary East").

[5] The Agency recognizes that the Sixth Circuit recently adopted and applied a rationale similar to the terminal point source theory. In *Kentucky Waterways Alliance*, the Sixth Circuit rejected environmental groups' argument that coal ash ponds that released pollutants into groundwater which flowed through a karst network to a jurisdictional surface water constituted a discharge of a pollutant under the statute. 905 F.3d 925 (6th Cir. 2018). The environmental groups argued that the releases required a NPDES permit, relying on both the direct hydrologic connection theory, which the court rejected as contrary to the text and structure of the statute, and, in the alternative, asserting that the discharge of coal ash pollutants from the karst formation was itself a point source discharge. On the latter claim, the court determined that neither groundwater itself, nor groundwater flowing through a karst network, is a point source. *Id.* at 932-33. The court recognized that groundwater "may indeed be a 'conveyance,'" but concluded that "karst . . . is neither discernible, discrete, nor confined." *Id.* at 933. Application of the Agency's interpretation of the Act described herein—that all releases from a point source to groundwater that reach a jurisdictional surface water are, as a legal matter, categorically outside of the NPDES program—leads to the same result as the Sixth Circuit, but based on a different rationale. Nothing in the *Kentucky Waterwaters Alliance* decision would preclude application of the Agency's interpretation within the Sixth Circuit.

exclusively addresses point source discharges to navigable, ocean, and contiguous zone waters—to releases of pollutants to groundwater. The brief argues that reading the statute as excluding discharges from a point source to groundwater "would allow dischargers to avoid responsibility simply by discharging pollutants from a point source into jurisdictional surface waters through any means that was not direct." Brief for the United States as Amicus Curiae at 20. This position fails to give sufficient weight to the structure and legislative history of the statute indicating that Congress intended in the CWA to leave regulation of all releases of pollutants to groundwater to states, in pursuit of the overall objective of the statute. In addition, views about the general purpose of the Act should not override Congress's evident intent not to regulate discharges to groundwater of any kind. As the Supreme Court has explained, "the textual limitations upon a law's scope are no less a part of its 'purpose' than its substantive authorizations." *Rapanos v. United States*, 547 U.S. 715, 752 (2006) (plurality op.). Further, excluding these releases from the scope of the NPDES program does not equate to no protection for ground and surface waters; rather, as described further below, states will continue to exercise their authority over these waters as will other federal programs.

Some commenters placed significance on a statement in the government's *County of Maui* amicus brief that the direct hydrologic connection theory was the Agency's "longstanding position." Brief for the United States as Amicus Curiae at 5. However, as the full suite of public comments reveal, there have in fact been a range of prior statements by the Agency, some of which align with this Interpretive Statement, that the Agency has now considered in its analysis for the first time. Lack of consistent and comprehensive direction from EPA on this issue has led to inconsistent interpretation across the country and has created uncertainty for regulated entities. Even where the Agency has stated an interpretation, the Agency has not issued regulations nor

formal guidance focused on and explaining the basis for the position. As noted above, this Interpretive Statement contains the Agency's most comprehensive analysis of the CWA's text, structure, legislative history and judicial decisions that has been lacking in prior Agency statements on this issue. In so doing, today's statement establishes a firm legal foundation for regulatory decisions by EPA and states administering CWA programs and clear guidance for the courts.

Some commenters to EPA's February 2018 Federal Register notice highlighted certain factual scenarios, such as movement of groundwater through a sub-surface lava tube or karst network that may resemble formations which courts have found to be point sources. *See* Nat'l Groundwater Assoc. Comments at 2 (describing certain groundwater formations, such as "lava tube openings, cave or conduit openings (including karst conduit networks), or other geologic features" that "function as natural pipelines capable of transporting water, effluents, and contaminants from one point to another point and behave similarly to manmade pipes conveying fluids"). In accordance with EPA's interpretation of the statute, because releases of pollutants from a point source to groundwater are categorically excluded from the scope of the NPDES program, even if those pollutants reach jurisdictional surface waters, it is immaterial whether pollutants subsequently travel through groundwater in a manner resembling point source discharges. EPA's position is that, in accordance with the best, if not the only, interpretation of the statute, releases to groundwater are not subject to the point source analysis, *i.e.*, the CWA Section 301(a) prohibition, because the statute does not cover such releases. Accordingly, groundwater cannot be deemed a point source.

Given the indications in both the text of the statute as well as the legislative history that Congress intended to categorically leave regulation of groundwater to the states, these factual

distinctions are of no legal significance. Applying the commenters' theory that releases to groundwater are excluded because the physical characteristics of groundwater are dissimilar to what some courts have found to be point sources is unnecessary. The numerous provisions in the Act linking groundwater to nonpoint source pollution, and the absence of discussion of groundwater in any of the regulatory sections of the CWA, provide ample support that in establishing the NPDES program Congress intended to leave regulation of *all* releases of pollutants to groundwater, akin to nonpoint source pollution, to the states.[6]

V. Case Law

Over the 46-year history of the CWA, numerous courts have grappled with the question that EPA addresses with this interpretation. Many courts, including the Fifth, Sixth, and Seventh Circuit Courts of Appeals, have looked to both the language of the Act and the legislative history and determined that the Act excludes from its regulatory requirements all pollutant discharges to groundwater, regardless of whether that groundwater is hydrologically connected to jurisdictional surface waters. Other courts, including the Fourth and Ninth Circuit Courts of Appeals, have cited the broad, protective goals of the Act, and applied in isolation the definition of "discharge of a pollutant" to releases of pollutants from point sources to groundwater that migrate to jurisdictional surface waters. Upon this premise, these courts have then found that, upon meeting the courts' respective tests for assessing the connectedness between the

[6] While not the conclusion reached herein, some courts have resolved these issues by deeming releases of pollutants that have seeped into groundwater and subsequently reached surface waters to be nonpoint source pollution. *See Sierra Club v. El Paso Gold Mines, Inc.*, 421 F.3d 1133, 1141 n. 4 (10th Cir. 2005) ("Groundwater seepage that travels through fractured rock would be nonpoint source pollution which is not subject to NPDES permitting."); *Penn Environment v. PPG Indus., Inc.*, 964 F. Supp. 2d 429, 455-56 (W.D. Pa. 2013) ("[A] discharge occurring through the migration of groundwater and soil runoff . . . represents 'nonpoint source' pollution.").

groundwater and jurisdictional surface waters, such releases are subject to NPDES requirements. The Agency believes that these interpretations departed from the text and history of the CWA, and finds the decisions of the Fifth and Seventh Circuit more persuasive and true to Congress's intent in enacting the statute.

The decisions of other circuits which have taken a different approach than the Fourth and Ninth Circuit—taking a holistic view of the statute and accounting for the legislative history—are informative. In the 1977 *Exxon v. Train* decision, the Fifth Circuit conducted an extensive analysis of the text, structure, and legislative history of the statute, and held that the Act did not give EPA authority to regulate certain releases of pollutants into groundwater. There, EPA had asserted authority to require NPDES permits for subsurface disposal into deep wells where an entity already had a permit for surface discharge. 554 F.2d at 1319. The Agency did not argue that a permit was required because disposal was an addition of a pollutant to "navigable waters," *id.* at 1318 n.17, but instead that its authority was premised on the presence of an existing jurisdictional surface water discharge, *id.* at 1320. In analyzing the question of EPA's authority over deep well disposal, the court noted that "EPA has not argued that the wastes disposed of into wells here do, or might, 'migrate' from groundwaters back into surface waters that concededly are within its regulatory jurisdiction," and thus, the court "express[ed] no opinion on what the result would be if that were the state of facts." *Id.* at 1312 n.1.

However, in holding that EPA's assertion of authority was unsupported by the text and legislative history of the statute, the court made two observations that are relevant to the broader question of regulation of any discharges to groundwater. First, that the court's construction was true "to Congress' intention not to interfere with existing state controls over groundwater" generally, given the complex, state-specific nature of groundwater regulation. And second, that

the legislative history of the Act gives not "the slightest hint that any Member thought the bill would grant the Administrator any power to regulate deep-well disposal *or any other form* of groundwater pollution." *Id.* at 1329 (emphasis added).

In *Rice v. Harken Exploration Co.*, the Fifth Circuit addressed a factual scenario where the plaintiff's Oil Pollution Act (OPA) claim was premised on pollutant discharges to groundwater migrating to and polluting jurisdictional surface waters. In analyzing the merits of that claim, the court relied on *Exxon* to determine whether the OPA's requirements governing discharges to "navigable waters of the United States" apply to discharges to groundwater that reach such surface waters. There, the plaintiffs alleged that groundwater under their land was contaminated by pollutants discharged by Harken Exploration's oil and gas operations, and that those pollutants seeped from the groundwater into several bodies of surface water, in violation of the OPA. *Rice v. Harken Exploration Co.*, 250 F.3d 264, 265-66, 270 (5th Cir. 2001).

Due to the lack of case law construing the term "navigable waters of the United States" in the OPA context, the court's analysis focused on cases construing the scope of the CWA, given the court's view that the use of the term "navigable waters" in both statute was analogous. *Id.* at 267-68 ("The legislative history of the OPA and the textually identical definitions of 'navigable waters' in the OPA and the CWA strongly indicate that Congress generally intended the term 'navigable waters' to have the same meaning in both the OPA and the CWA."). The court recognized that "[i]n *Exxon*, we held that the legislative history of the CWA belied any intent to impose direct federal control over any phase of pollution of subsurface waters." *Id.* at 269. However, acknowledging that *Exxon* addressed the specific question of CWA regulation of deep-well disposal, the court explained that "[t]his Court has not yet decided whether discharges into groundwater that migrate into protected surface waters are covered" under the CWA or the OPA.

Id. at 271. Relying on its CWA analysis in *Exxon*, and the analogous absence of any indication that Congress intended to regulate any type of groundwater under the OPA, the Fifth Circuit held that "a generalized assertion that covered surface waters will eventually be affected by remote, gradual, natural seepage from the contaminated groundwater" was outside the scope of the OPA in order "to respect Congress's decision to leave the regulation of groundwater to the States." *Id.* at 272.

In *Village of Oconomowoc Lake v. Dayton Hudson Corporation*, the Seventh Circuit squarely addressed the issue of point source discharges that reach jurisdictional surface waters through groundwater, and concluded that "[n]either the Clean Water Act nor the EPA's definition [of waters of the United States] asserts authority over ground waters, just because these may be hydrologically connected with surface waters." 24 F.3d at 965. In that case, a municipality in Wisconsin filed a CWA citizen suit claiming that a NPDES permit was required for a waste retention pond at a Target Stores distribution center, due to potential seepage of waste into groundwater, which could reach jurisdictional surface waters. *Id.* at 963, 965.

In analyzing the facts before it, the Seventh Circuit explicitly recognized the possibility that "water from the pond will enter the local ground waters, and thence underground aquifers that feed lakes and streams that are part of the 'waters of the United States.'" *Id.* at 965. The court also recognized, however, that "the Clean Water Act does not attempt to assert national power to the fullest," and intentionally does not apply to all waters. *Id.* Based on the text of the statute and the same compelling legislative history analyzed by the Fifth Circuit and discussed above, the court concluded that "[t]he omission of ground waters from regulations is not an oversight," as "Congress elected to leave the subject [of groundwater regulation] to state law[.]"

Id. Thus, there was no cognizable CWA claim based on discharges to ground water that may reach jurisdictional surface waters. *Id.*

Most recently, the Sixth Circuit concluded, in two related cases addressing pollutants from coal ash ponds that seeped into groundwater that subsequently reached jurisdictional surface waters, that the NPDES permitting requirements do not apply to releases to groundwater. In *Kentucky Waterways Alliance v. Kentucky Utilities Co.*, the Sixth Circuit held that the "text and statutory context of the CWA" make clear that the statute "does not extend to reach this form of pollution." 905 F.3d at 933. In *Tennessee Clean Water Network v. TVA*, the court reversed a district court decision adopting the direct hydrologic theory, finding that "any alleged leakages into the groundwater are not a violation of the CWA." 905 F.3d at 444. The Sixth Circuit recognized the statute's broad goal of protecting the Nation's waters, but held that this goal cannot be pursued at all costs "because the CWA precludes federal regulation over non-navigable-water pollution and over nonpoint-source-pollution." *Ky. Waterways Alliance*, 905 F.3d at 937. The court explained:

> It is true that Congress sought to protect navigable waters with the CWA . . . But it also imposed several textual limitations on the means used to reach that goal. Had it wished to do so, Congress could have prohibited *all* unpermitted discharges of *all* pollutants to *all* waters. But it did not go so far. Instead, Congress chose to prohibit only the discharge of pollutants to "*navigable* waters from any *point source*."

Id.; *see also, e.g.*, *Prairie Rivers Network v. Dynegy Midwest Generation, LLC*, No. 18-CV 2148, slip op. at 14 (C.D. Ill. Nov. 14, 2018) (Applying the Seventh Circuit's decision in *Village of Oconomowoc* to hold that "[i]f the discharge is made into groundwater, and the pollutants

somehow later find their way to navigable surface waters via a discrete hydrological connection, the CWA is still not implicated, because the offending discharge was made into groundwater, which is not subject to the CWA"); *Cape Fear River Watch v. Duke Energy Progress*, 25 F. Supp. 3d 798, 810 (E.D.N.C. 2014) ("Congress did not intend for the CWA to extend federal regulatory authority over groundwater, regardless of whether that groundwater is eventually or somehow 'hydrologically connected' to navigable surface waters."); *Umatilla*, 962 F. Supp. at 1318 (observing that "the CWA's NPDES program *should* apply to groundwater to adequately protect surface water," but concluding that "the law as written, as intended by Congress, and as applied in Oregon for over two decades does not regulate even hydrologically-connected groundwater"); *26 Crown Assocs., LLC v. Greater New Haven Reg'l Water Pollution Control Auth.*, No. 3:15-cv-1439, 2017 U.S. Dist. LEXIS 106989, *24 (D. Conn. 2017) (noting that "if the Clean Water Act were to apply as a routine matter to the discharge of pollution onto the ground that ends up seeping into the ground water, then Congress's purpose to limit the scope of the Clean Water Act [to point source discharges] would be easily thwarted.").

In contrast, the circuit and district court decisions concluding that certain releases to groundwater *are* subject to NPDES requirement have often left unaddressed the text, structure, and legislative history of the Act pointing to Congress's intent to exclude all discharges to groundwater from the NPDES program. The Fourth Circuit recently held that point source releases to groundwater that reach jurisdictional surface waters require a NPDES program in certain instances, adopting EPA's historical direct hydrological connection approach. *Kinder Morgan*, 887 F.3d at 652. In that decision, the court did not address any of the legislative history discussed herein, nor did the court acknowledge or address the decisions of the Fifth or Seventh Circuit.

Rather, in analyzing whether gasoline from a ruptured underground pipeline that undisputedly leached from groundwater into navigable waters required a NPDES permit, the Fourth Circuit framed its inquiry as only whether, first, the discharge was from a point source, *id.* at 649-50, and second, whether there was a direct hydrological connection between the groundwater and jurisdictional surface water, a fact-specific determination. *Id.* at 651. The court cited to the broad purpose of the Act to restore and maintain the chemical, physical, and biological integrity of the Nation's waters, asserting that "the statute established a regime of zero tolerance for unpermitted discharges of pollutants." *Id.* at 652. The court reasoned that "if the presence of a short distance of soil and ground water were enough to defeat a claim, polluters easily could avoid liability under the CWA by ensuring that all discharges pass through soil and ground water before reaching navigable waters." *Id.* The court ultimately concluded that "an alleged discharge of pollutants, reaching navigable waters located 1000 feet or less from the point source by means of ground water with a direct hydrological connection to such navigable waters, falls within the scope of the CWA." *Id.* at 652. In reaching this holding,[7] however, the court failed to consider Congress's intent, evident from the text, structure, and legislative history of the Act, to treat groundwater and nonpoint source discharges differently under the Act, by leaving their regulation to states.[8]

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[7] One judge dissented from the panel's holding, finding that there was no Clean Water Act violation because the discharge of pollutants from the pipe had been repaired, and that the continued migration through groundwater was not a "discharge of a pollutant" under the Act. *Kinder Morgan*, 887 F.3d at 662-63 (Floyd, J. dissenting). The dissent recognized that "[t]his kind of migration of pollutants through the natural movements of groundwater amounts to nonpoint source pollution," and that, "[w]hile there is no doubt this kind of nonpoint source pollution affects the quality [of] navigable waters, Congress deliberately chose not to place nonpoint source pollution within the CWA's reach." *Id.*

[8] On September 12, 2018, in *Sierra Club v. Virginia Electric Power Co.*, the Fourth Circuit applied its decision in *Kinder Morgan* to another fact pattern involving the addition of pollutants

Applying a similar analysis, in its decision in *County of Maui*, the Ninth Circuit explained:

> We assume without deciding that groundwater here is neither a point source nor a navigable water under the CWA. Hence, it does not affect our analysis that some of our sister circuits have concluded that groundwater is not a navigable water. We are not suggesting that the CWA regulates all groundwater. Rather, in fidelity to the statute, we are reinforcing that the Act regulates point source discharges to a navigable water, and that liability may attach where a point source discharge is conveyed to a navigable water through groundwater.

Cty. of Maui, 886 F.3d at 746 n.2 (citations omitted). The court also rejected the direct hydrological connection theory espoused by the United States as amicus, as "it reads two words into the CWA ('direct' and 'hydrological') that are not there." *Id.* at n.3. Then, despite the court's claim of "fidelity to the statute," it ultimately determined, without any grounding in the statute's text, that point source discharges to groundwater that reach jurisdictional surface water are subject to NPDES permitting requirements where they are fairly traceable back to the point source and more than *de minimis*. *Id.* at 749. The court also left "for another day the task of determining when, if ever, the connection between a point source and a navigable water is too

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to jurisdictional surface waters through groundwater. In that case, the court recognized the precedent in *Kinder Morgan* that the addition of a pollutant into navigable waters via groundwater can violate Section 301(a) if the plaintiff can show a direct hydrological connection between the ground water and navigable waters. 903 F.3d 403, 409 (4th Cir. 2018). The court went on to hold that a coal-fired power plant that stored coal ash on site in a landfill and in settling ponds was not liable under CWA Section 301(a) for discharges of arsenic that leached from the coal ash into groundwater and ultimately into a nearby river because the settling ponds did not constitute "point sources" under the CWA. *Id.* at 411.

tenuous to support liability under the CWA," thus expanding the scope of the Act to cover any release of pollutants to groundwater that reaches a jurisdictional surface water. *Id.*

The Ninth Circuit stated that its decision was consistent with *Rice* and *Village of Oconomowoc*, despite reaching the opposite conclusion about the proper scope of the Act. The court's basis for claiming consistency with *Rice* was that the Fifth Circuit, in its analysis of the facts in that case, "required some evidence of a link between discharges and contamination of navigable waters." *Id.* With respect to the *Village of Oconomowoc* decision, the Ninth Circuit asserted that the Seventh Circuit "only considered allegations of a 'potential [rather than an actual] connection between ground waters and surface waters,'" while the connection in its own case was undisputed. *Id.* However, these are factual distinctions that should not affect the ultimate outcome. While it is accurate that in both *Rice* and *Village of Oconomowoc*, the courts looked to whether a connection to jurisdictional surface waters existed, this factual inquiry and observation does not alter the courts' ultimate interpretations of the CWA and OPA, and their recognition of the line Congress drew with respect to pollutant discharges to groundwater.

In *Rice*, the court observed that "[i]n light of Congress's decision not to regulate ground waters under the CWA/OPA," it was "reluctant to construe the OPA in such a way as to apply to discharges onto land, with seepage into groundwater, that have only an indirect, remote, and attenuated connection with an identifiable body of 'navigable waters.'" *Rice*, 250 F.3d at 272. However, while the court's reluctance was stated in relation to the facts in that case, its ultimate interpretation was based on Congress's intent: "[w]e *must* construe the OPA in such a way as to respect Congress's decision to leave the regulation of groundwater to the States." *Id.* (emphasis added). Similarly, though the facts before the Seventh Circuit addressed only a potential hydrologic connection between groundwater and jurisdictional surface water, the court's

determination was unequivocal: "Neither the Clean Water Act nor the EPA's definition [of navigable waters] asserts authority over ground waters, just because these may be hydrologically connected with surface waters." 24 F.3d at 965.

The tests adopted by the Ninth and Fourth Circuits and certain district courts create a confusing patchwork of judicial interpretations, which the Agency has concluded lack support in the text, structure, and legislative history of the Act. As the Supreme Court has explained, "an administrative agency's power to regulate in the public interest must always be grounded in a valid grant of authority from Congress," and "'in [its] anxiety to effectuate the congressional purpose,' an agency "must take care not to extend the scope of the statute beyond the point where Congress indicated it would stop." *See FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 161 (2000) (internal citations omitted). While the Ninth Circuit adopted a "fairly traceable" standard, rejecting EPA's prior "direct hydrologic connection" test, and the Fourth Circuit imposed a 1,000 foot distance limitation, other courts have adopted other variations on when groundwater is sufficiently connected to jurisdictional surface water to require a NPDES permit. *See, e.g., Tenn. Clean Water Network v. TVA*, 273 F. Supp. 3d 775, 827 (M.D. Tenn. 2017) (holding that "[a]s long as a connection [between groundwater and surface water] is shown to be real, direct, and immediate, there is no statutory, constitutional, or policy reason to require that every twist and turn of its path be precisely traced"), *rev'd* 905 F.3d 436 (6th Cir. 2018); *McClellan Ecological Seepage Situation v. Weinberger*, 707 F. Supp. 1182, 1196 (E.D. Cal. 1998) (discharges to groundwater are subject to CWA regulation if "the groundwater is *naturally connected* to surface waters" (emphasis added)); *vacated on other grounds, McClellan Ecological Seepage Situation v. Perry*, 47 F.3d 325 (9th Cir. 1995).